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OF THE
Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

VOLUME XXV. No. 10
WHOLE NUMBER 290

GRAND RAPIDS, MICH., OCTOBER, 1926

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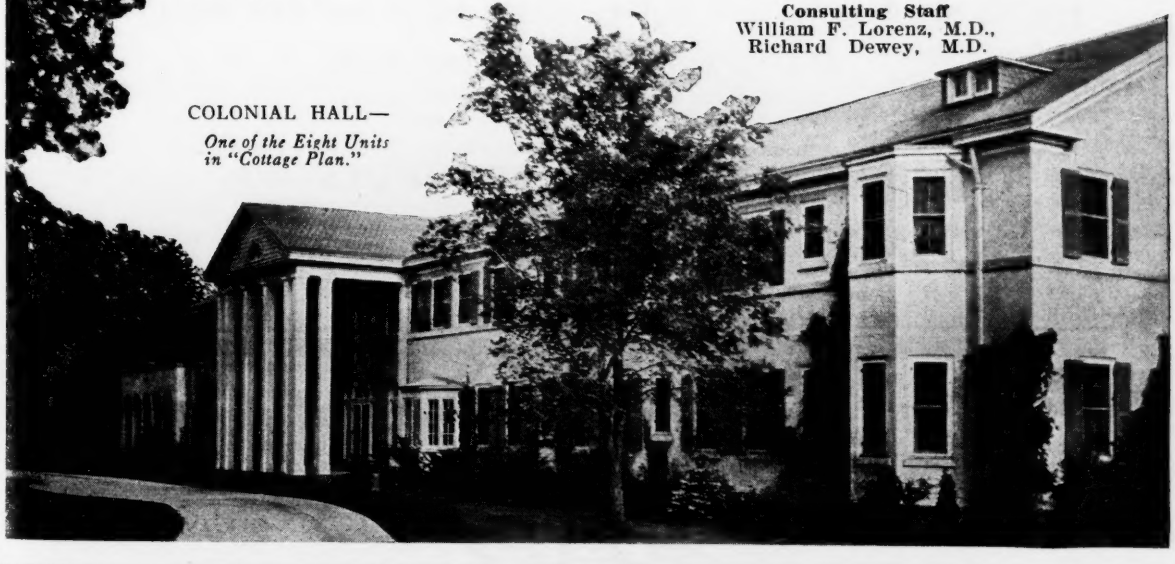

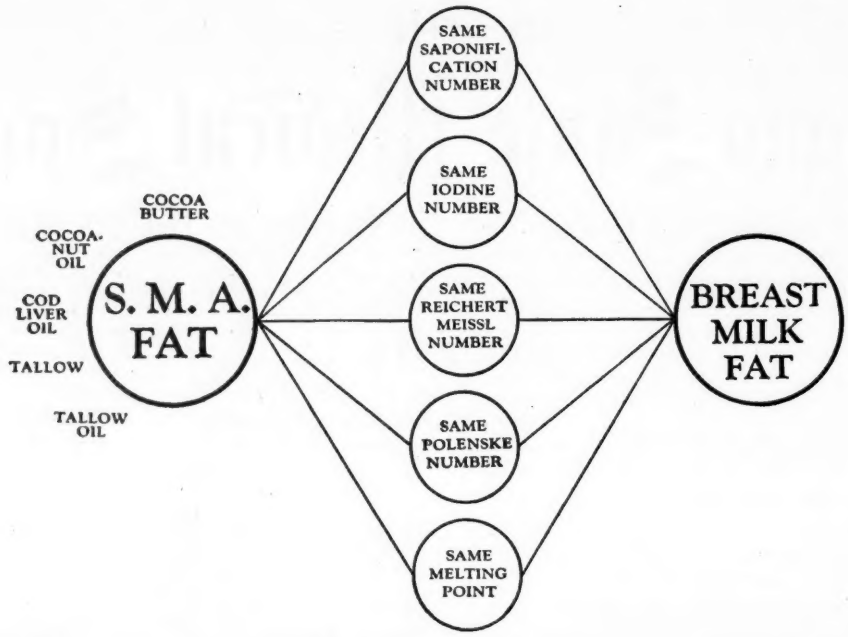

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The Journal
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Vol. XXV. GRAND RAPIDS, MICH., OCTOBER, 1926 No. 10

Original Articles

PRESIDENT'S ANNUAL ADDRESS. MEDICAL PROBLEMS AND PROGRESS*

C. G. DARLING, M. D., F. A. C. S.
ANN ARBOR, MICH.

What medicine has accomplished in the last decade is usually measured by one idea —the lengthening of human life, but that is only a part of the story. To quote from a non-medical writer: "We (the public) think of the discoverers in medical science as relieving man's body from disease. The addition of some six years to the average man's life within a quarter of a century is, in the aggregate, an immense enrichment of the world. Even greater is the enrichment that comes of relief from anxiety, the intellectual and spiritual release, the more abundant flowing of man's powers that follows rescue from the tyranny of fear"—in other words, the man with a body free from disease may experience the real joy of living.

In these days of enlightenment every physician may be classed as a discoverer in medical science, but few are selected for fame. Medical science borrows from material discoveries, such as heat, light and electricity.

Mass production and efficiency are seen in the development of hospitals, the development of nursing and the development of clinics. Then there is the rapidly developing social side of medicine, with the social service nurse as an aid to the public, the doctor and the patient.

HOSPITALS

The demand of the public for hospital service has been so great that development can hardly keep pace. Sickness at home with only home nursing and the family doctor in attendance is rapidly passing, and this ancient method of caring for the sick will disappear when the wide spaces are supplied with hospitals. Already there are 170 hospitals in this state for community use, with a total of 14,000 beds. There still remain 24 counties without hospitals to serve the communities. Most of this development has been within the last 30 years, and it is not yet able to keep pace with the increase in population. A modern hospital is judged by its laboratories and the physicians attached to the service. Every hospital employing internes has become a teaching hospital for nurses and internes. It will require specialists of a higher order to lead the student-physicians and meet other present-day demands of the public.

The public favors the gathering of physicians into groups called clinics. At present there are three forms: One form independent of a hospital; another, more or less intimately associated with its hospital, a part of it; and a third, the closed hospital. The closed hospital may have a salaried staff. All three forms are active in this state, and public patronage indicates that all three forms are working.

Under the present method of hospital training after graduation, before the student is allowed to practice, most of the student-physicians will seek a hospital alliance where they may have the benefits of laboratory investigation and a chance to grow. This means that a county or adjoining counties desiring good medical service must furnish a community hospital. Greater public interest will be manifest when such a hospital is built by local rather than by general taxation. Local public interest must be aroused, and is being aroused, by education along various channels, particularly that of the Joint Committee on Public Health. This is noted by the ever-increasing demands for popular lectures on health topics. Physicians will readily serve when the community furnishes the hospital. Many counties are spending large sums for transportation to the University Hospital of patients who might be cared for in local hospitals of proper standing.

The public has demanded a better stand-

* Delivered at General Session, 106th Annual Meeting Lansing, September 15, 1926.

ard for hospitals, and better training for physicians. The cost of a medical education is so great that the physician cannot afford to stop at a cross-road or even a small village unless there is a community hospital there. Telephones, cars, and airplanes are bringing the people from the backwoods to the community centers. A short time hence farming will be done from a community center.

LICENSURE

A medical examining board has been appointed by the Governor to protect the public from imposters. No one should be allowed to treat the sick who is not examined and licensed by this board. Health legislation might be greatly simplified if all medical bills that come before the legislature were submitted to this board for advice concerning the merits of such pending legislation. "It would from many a folly free us and foolish notion." The man who specializes in crank shafts or spinal columns may know little about the automobile, combustion, or the human body and its ailments. To the public demanding the best in physicians I would suggest: See that they are properly labeled and take no others!

TRAINED NURSE

The trained nurse followed the development of the hospital. Thirty-six years ago the second University Hospital was opened for patients and a training school for nurses. Two years were required for training a nurse, after which time she was expected to give full service whether employed in the hospital or on private cases in homes. One sees a great change in 30 years in this regard. The nurse has risen from a mere servant to a dominating character with no limit to her possibilities. She has become organized and specialized. The public likes it, and pays the price. Next to high-priced cars and diamonds, sickness can be made the greatest luxury of modern times. Hospital wards are made smaller than they were 10 years ago, because of the increasing demands for private rooms. No respectable illness or operation can be successfully treated with less than two nurses—one for the night, and another for the day. Some hospitals offer three eight-hour shifts, and occasionally four nurses may be employed on one case. Most hospitals insist upon employing nurses for 12-hour duty, and at times the number of trained nurses in a hospital will equal the total of all the patients. I mention these facts to show that the public by its demands for service is responsible for the high cost of sickness.

The high cost of sickness may be met by keeping well. The medical profession has for some time been working toward this Utopian end. Our State Board of Health watches water supplies, runs down typhoid before it becomes epidemic, and in a hundred ways is guarding the health of the public with such efficiency that other states have praised and adopted parts of its program. Health examinations have been advised in every county in Michigan. The response has not been as great as hoped for, because of the improper approach.

HEALTH EDUCATION

Health education and examination should begin in the kindergarten and continue through the grades of the public and parochial schools. A fine example of what can be done along this line is seen in the work of Dr. R. C. Mahaney in the schools of Owosso. Here will be found the prospective tuberculosis patient at a time when discovery and proper advice may forestall not only this disease, but others of less importance. The public can do no greater missionary work for itself than to demand of the Health Commissioner, and the Joint Committee on Education, the formation and extension of some such plan as Dr. Mahaney is using in the public schools of Owosso. I would suggest this as a topic for discussion at golf tournaments, bridge parties and church gatherings.

TUBERCULOSIS

Tuberculosis still remains the outstanding disease for study and special treatment. Through the distribution of knowledge of this disease much good has come by awakening the public to health consciousness, creating in this way a desire to learn how health may be preserved, as well as the prospective cure of disease.

Back in the eighties, the first tuberculosis sanitorium with a laboratory attachment was erected at Saranac Lake by Dr. Edward Trudeou, of whom Osler wrote: "And this is the lesson of Edward Trudeau's life—the lesson of a long and successfully fought campaign. An implacable foe entrenched within his own citadel has been often brought to terms of a truce, never wholly conquered. He was set at once a tower of strength and a splendid example."

Trudeau's Autobiography is one of the great American books. His was a great battle—a battle still being fought by others. Twenty-five years ago this same Trudeau made the extraordinary statement for the time that 75 per cent of cases of pulmonary

consumption might be expected to recover if recognized in time and placed in favorable surroundings. Today we are seeking a tuberculosis sanitorium which shall be a school where the patient-student is taught how to care for himself and how to protect others.

The development of proper sanitoria has been slow in Michigan because the public has not understood. The recent opening of the After Cure Tuberculosis Farm, near Ypsilanti, will be a very impressive lesson about the curability of this disease. The program which will be presented by the committee should be carried forward.

SOCIAL SERVICE

The wave of interest in crippled children which recently swept this state was of wonderful educational value to the various societies interested, teaching them that many deformities require years of careful manipulation and treatment to get the best results; also that the well-to-do person can find much satisfaction in being a crutch or a cane to his unfortunate brother. In his continued interest, he comes to understand, in a small way, the disappointment that a surgeon must face when there is failure of co-operation in the treatment of these cripples. He begins to doubt the miraculous touch of a Lorenz—even the bloodless touch.

The physician has neglected an interest in social service medicine, leaving it to lay organizations and nurses. It is a phase of the work that may well come under the direction of the County Health Officer when one is appointed. All of this work demanded by the public, where the physician is concerned, is being undertaken in a proper spirit.

Outside of the physicians' realm except as a personal factor, one social menace deserves mention here: Death from motor accidents in Michigan is rapidly increasing, say nothing about the terrible injuries which doctors of the state are called upon to attend. We speak about making this state a summer resort. If we are going to do this, we should indicate that we are not so much given to the killing of one another in collisions with other cars or railroad trains. The lessening of this death rate is not like smallpox or diphtheria, where the physician can partly control by vaccinations, but it remains entirely with the public. It is OUT OF THE SPHERE OF MEDICINE to prevent these accidents, most of which are a personal or public neglect. They materially disturb the six-year increase of human life previously spoken of, and one may ask what is to be done to lessen these appalling mishaps which occur through no fault of the doctor, yet necessitate the reporting of death where deaths occur. We see a two-fold advantage in the announcement made by the University of Michigan that irresponsible students are not to be allowed to use cars in their junior University years. It has been suggested that safety be taught in the public schools. Here it might well be entered as part of the children's health curriculum.

LEGISLATION

Regarding laws which pertain to our profession and to public health, I would suggest that the Committee on Legislation and Public Policy meet very soon with the Council and the Health Commissioner to prepare an outline of our plans and policy, and that a copy of their recommendations be sent to every member of the Legislature before that body meets for the transaction of business. To safeguard the lives and happiness of the people laws are being made to keep pace with the progress of modern invention. Can we not hope that our appeal to this body for preserving the health of the people and defending the progress of medicine will have like recognition?

FAMILY DOCTOR

The passing of the family doctor will be met by education—school training of what to do until the doctor arrives. Specialists in all fields of medicine will act as medical advisors—directing their friends and patients. The doctor, wherever he goes, has become a social being. The cloak of dignity formerly used to hide ignorance has been destroyed, and his general knowledge of what is happening in the medical world must be up to the last minute. He must be alive to what is going on in his world. He should be a member of the State Society if he is to have any professional value. He will spread the gospel of good health wherever he goes. He should place a high ethical and professional value upon himself if he would have a good public rating—all of which he cannot acquire with a diploma and a rubber stamp.

APPRECIATION

Fellow Doctors—Forty years ago I remarked to a friend, with whom I was discussing the question of honors which might come to one, that I would rather be president of the State Medical Society than the Governor of Michigan. That remark still stands. I thank you for the honor.

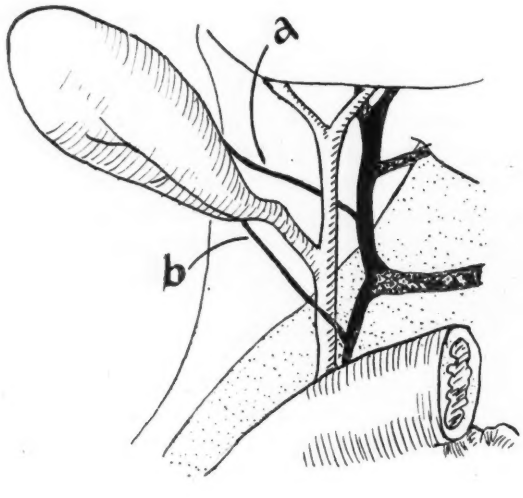
AN INTERESTING BILE DUCT ANOMALY

J. BELLAS, M. D.
MARQUETTE, MICH.

Bile duct anomalies are by no means infrequent so as to be uncommon. It is within the experience of every surgeon to run across these anomalies in some one of their forms, at one time or another.

The normal anatomical formation of these ducts is as follows:

The two hepatic ducts, right and left, leading from the right and left lobes of the liver respectively, unite in the portal fissure to form the common hepatic duct. As the latter descends it is soon met by the cystic duct leading from the gall bladder, and the two unite to form the common bile duct. This descends downwards and to the left between the folds of the lesser omentum in front of the Foramen of Winslow, behind the duodenum to empty into the middle of its second portion on its inner wall, the terminal course of the duct traversing pancreatic tissue and duodenal wall. Its terminal end expands into the ampulla of Vater in the duodenal wall and receives the pancreatic duct. Normally the bile ducts lie anterior to the portal vein with the hepatic artery lying medial to the common duct. The hepatic artery ascends and divides into left and right terminal branches. The left supplies the left lobe of the liver. The right crosses behind the common hepatic duct above its junction with the cystic duct, to enter the right lobe of the liver after first giving off the cystic artery. The cystic artery runs transversly to the right and ramifies on the surface of the gall bladder and in the angles between the gall bladder and the liver.



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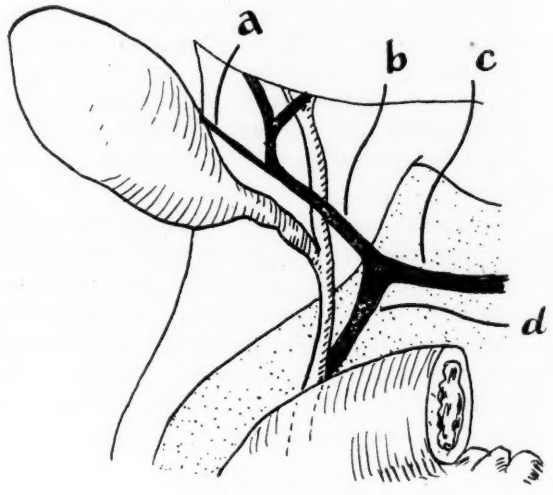

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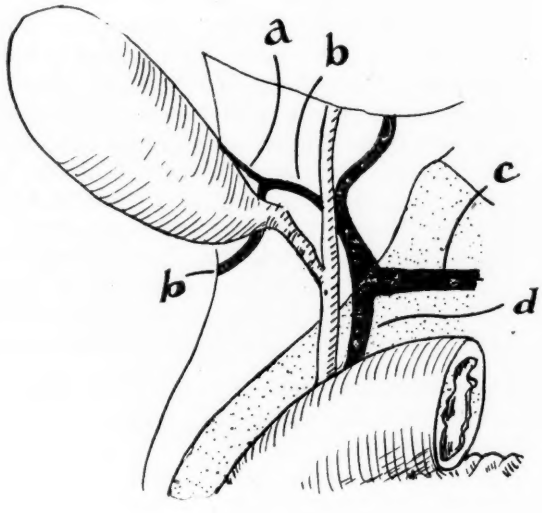

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Figures A, B, C—Bile ducts of normal formation. Variation in formation of hepatic artery and branches.

The illustration sketches indicate the most common anomalies met.

CASE REPORT

The following case presented an anomaly which I have not seen described and I would be interested to know if others have met similar cases.

The patient is a young woman of 28, single, employed as a house maid. Presented herself on April 14, 1926.

Family History—unimportant.

Previous Illness—Measles, "Flu" 1920. Attacks of grippe and tonsillitis. Last tonsillitis in February, 1926.

Operations—Appendectomy, 1912.

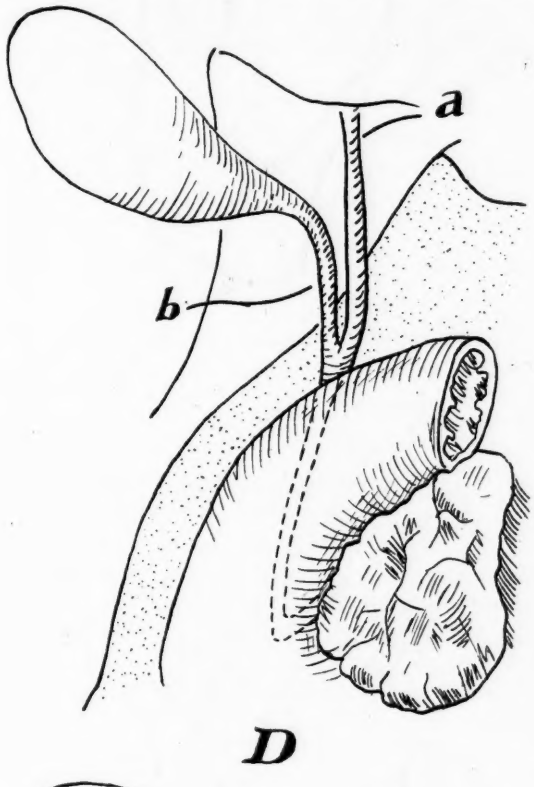
Menstrual History—Regular cycle 28 4-5. Profuse flow. Some pain. L. M. P. April 12, 1926.

Present Illness:

Chief Complaints—

1. Pain in upper abdomen and vomiting.
2. Jaundice.

The patient started vomiting first yesterday morning, and severe pain in upper abdomen developed shortly after. The pain has become steadily worse. It was sharp and colicky in character and left a residual soreness in the epigastrium. The jaundice appeared this morning. The pain shoots through to back between the shoulder blades. The patient had noticed her urine high colored a day or two before the onset of definite jaundice. She has had previous similar spells. The first attack occurred six years ago with pain and vomiting but no jaundice. There was a free interval until last fall when the patient had four attacks. In the last of these she was slightly jaundiced. The present attack is the most severe.



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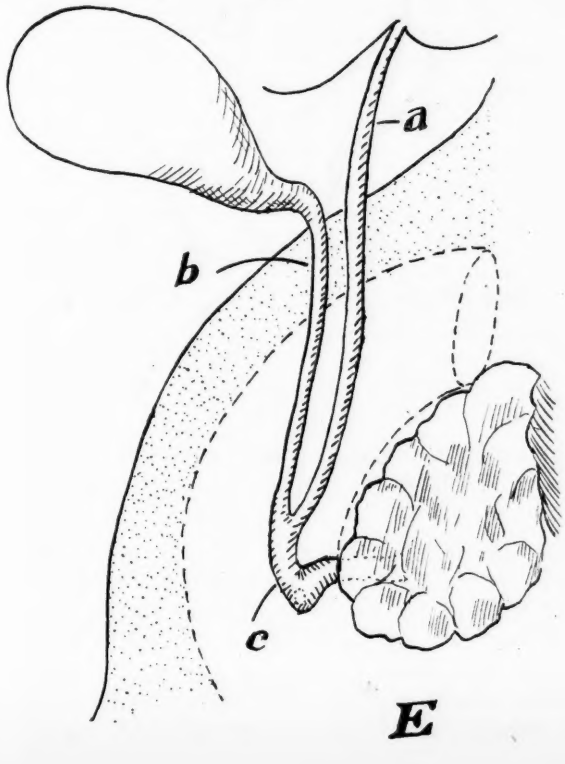

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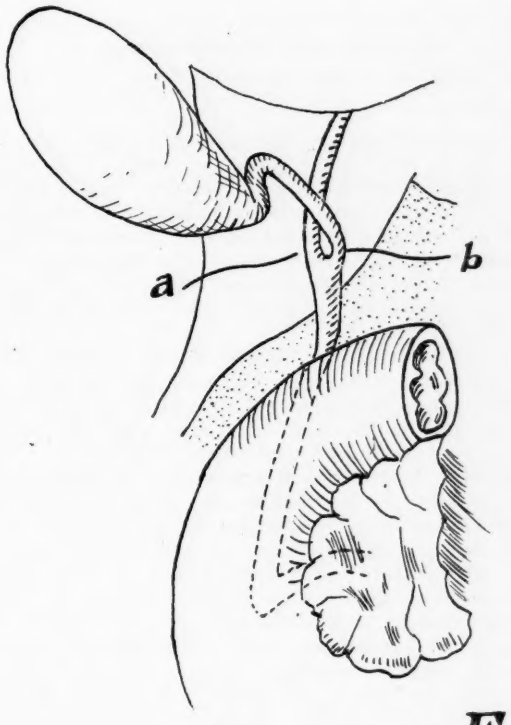

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Figures D, E, F—Variations in formation of bile ducts.

(a) Common hepatic duct.
(b) Cystic duct.
(c) Ampulla of Vater.

(Modified from Eisendrath, J. A. M. A. Sept. 14, 1918)

Physical Examination:

Head—sinuses, ears, nose—Negative.

Eyes—The sclerotics were definitely yellow.

Throat—Chronically inflamed tonsils were found.

Neck—Enlarged glands were felt in the sterno—mandibular angles. No goitre.

Heart and Lungs—Negative. Blood pressure 118/85.

Abdomen—There is definite acute tenderness under right costal margin upon pressure, and this is rendered worse upon taking a deep breath. No tenderness elsewhere. Nocosto-vertebral tenderness.

Skin—The patient is deeply jaundiced all over her body.

Reflexes—Normal.

Laboratory Findings:

1. *Urine* showed positive presence of bile.
2. *Blood,* Leucocyte count 5,500.
   Coagulation test, two minutes, six seconds.
3. *X-Ray* of gall bladder following the intravenous injection of sodium tetraiodophenolphthalein showed an imperfectly filled gall bladder with negative shadows at 10 hours. At 14 hours, there was practically no shadow.

Pre-operative Diagnosis:

1. Cholecystitis with Cholelithiasis.
2. Probable stone in common duct.

Operation:

Transverse incision through right upper abdomen passing in continuous fashion through all layers including peritoneum. The gall bladder bulged into the incision. The stomach was examined and found normal. The gall bladder was reddish-gray, thickened, closely adherent to the liver and to the duodenum. Adhesions to the duodenum were separated and the gall bladder shelled out of its liver bed from above downwards.

The gall bladder was shelled out of its bed and freed down to the neck. At this point the anomaly was found. There was apparently no cystic duct, the pelvis of the gall bladder uniting directly with the junction of the common hepatic and common bile ducts. I was tempted at first to clamp across the gall bladder neck with a view of terminating the cholecystectomy but better judgment compelled me to desist and to do a little more blunt dissection. I uncovered a situation such as illustrated in Figures 1 and 2. The hepatic and common ducts ran up parallel to meet the pelvis of gall bladder ,and had been so matted together as to give the appearance of a continuation of the gall bladder neck. Clamping at this point, as I had at first been inclined to do. would have severed the two ducts and have caused a complete obstruction to the flow of bile. No stones were felt in the hepatic or common ducts but a large stone the size of a hazel nut, was found impacted at the junction of the hepatic and common ducts with the pelvis of the gall bladder and was in all probability the cause of the jaundice. The stone was pushed back into the fundus of the gall bladder and the pelvis of the gall bladder clamped and ligated some distance above the point of junction. The rest of the operation was then completed in the usual manner.

Pathological examination—Revealed strawberry gall bladder with one large stone and two small stones of mulberry type.

Progress—For three to four days following operation, on an average of once daily, the patient was seized with typical sharp attacks of gall bladder colic, which I ascribed either to passage of some small stones located high up in hepatic ducts, and so inaccessible to palpation, or to some stagnant bile or mucus that was in the process of working down. Her jaundice, however, became progressively alleviated. She had no more attacks after that, and further progress was a source of pleasure to the patient.

At this point, I would like to say a few words in favor of the method of removing a gall bladder from above downwards. Many of the eminent surgeons have taken it upon themselves to speak in scornful terms of the practice of applying this method, declaring it unsurgical, and have contended that the method of removal of the gall bladder from below upwards was actually the easier after becoming accustomed to it. In my humble way, I have been unable to see the logic of this argument. In several informal interviews with surgeons of repute, I have succeeded in obtaining the admission that it made no difference which way a gall bladder was removed, and that in many cases it was considerably easier to remove it from above downwards. As one surgeon put it, "Both methods will do, but you are supposed to be more of a clever surgeon if you remove it from below upwards." I maintain the contention that the *easiest* way is the cleverest way. I have heard Dr. Willard Bartlett of St. Louis quoted as having said. "When we strike a difficult gall bladder case, we always remove the gall bladder from above downwards because it is the easiest way. Why not apply it in all cases?"

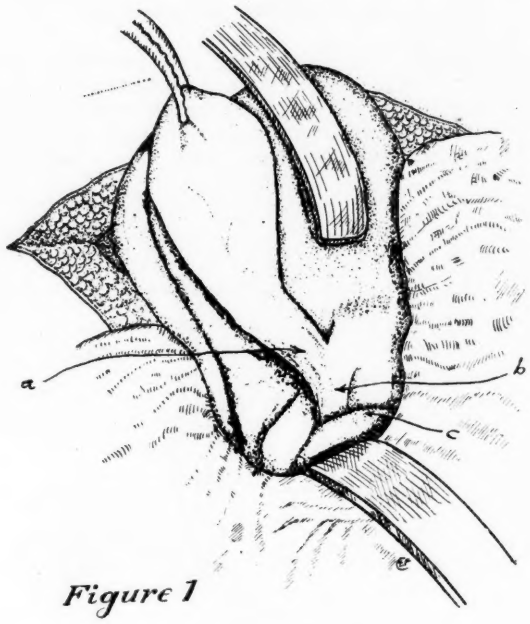

Figure 1

(a) Apparently the neck of the gall bladder.
(b) Apparently the common bile duct.
(c) Duodenum.

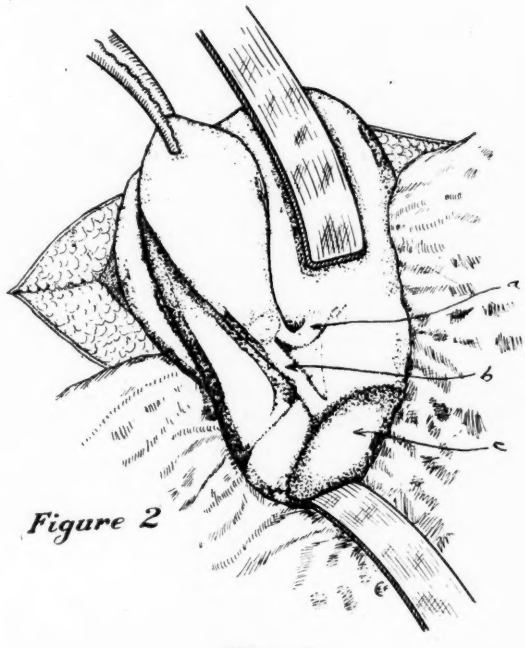

Figure 2

(a) Common hepatic duct.
(b) Common bile duct.
(c) Duodenum.

It seems to me logical that a procedure that reduces cholecystectomy from an operation of major proportion to one that hardly demands more technique than is employed in an ordinary appendectomy, should be a method of choice. I have heard the contention that excessive bleeding would occur which would obscure the field, and prove very troublesome on account of the cystic artery not being clamped. But there is no bleeding or it is so little as to be negligible. The fine terminal ramifications attend to that.

CHAIRMAN'S ADDRESS SECTION ON GYNECOLOGY AND OBSTETRICS*

HOWARD CUMMINGS, M. D.
ANN ARBOR, MICH.

At times, during the active practice of our specialty, it is of value to stop and consider the advancements being made; the problems neglected or unsolved; the discarded and discredited theories and practices. Only in this way can one keep abreast with his field of medicine, and truly grow.

In obstetrics, a few but very significant changes are taking place. Prenatal care, long neglected, has been emphasized by outside influences. Today, the physicians in any community, who dare to neglect prenatal care, find their patients aided and advised by nursing organizations, state boards of health and even by federal agents. The obstetrical patient leaves the local physician and obtains care at the hands of obstetricians who do give prenatal care. These changes are often advised by outside agencies.

The recent literature dealing with the conduct of normal labor, has been very meager, but much of value could be written. The practice of using rectal instead of vaginal examinations in the conduct of labor, is a hopeful sign. Although vaginal examinations are useful, their frequent use often jeopardizes the patient's life, when operative intereference from above becomes necessary.

The erection of modern hospitals in many communities, has made the care of abnormal obstetrical cases much safer for the patient and more convenient for the doctor. The growing tendency of primiparous patients to seek hospital care, should be reflected favorably in our material and infant mortality statistics.

The recent hysteria, produced by advocates of painless child birth, has subsided. The rational use of gas, ether, and morphine has been adopted with good results to mother and child.

Radical procedures in obstetrics, for example, versions and extractions, episiotomy and low forcep operations, manual removal of the placenta in all cases, are gradually waning. All of these procedures are extremely useful, but the selection of cases and judicious use of these measures, will supplant their routine use.

Cesarean section, on account of the ease with which it could be done, threatened to become a panacea for all complications of obstetrics. No doubt the low Cesarean section has extended the field of usefulness of this operation but it is technically more difficult and is not always successful. The knowledge that Cesarean section is not without maternal mortality; that subsequent pregnancies carry added risks; that this operation does not solve all of the complications of pregnancy, is gradually placing Cesarean section in its proper place.

The field of neglected and unsolved obstetrical problems is large. The physiology of the ovary and placenta is not complete. The toxemias of pregnancy are not understood, and although they have been classified, and differentiated pathologically and by laboratory tests, their origin is not known and the methods of treatment are at wide variance. At present, the more conservative measures of treatment are in the ascendancy, at least, these measures are usually tried before active measures are instituted. Much might be accomplished if uniform history records and laboratory methods were used on all cases of toxemia of pregnancy. One physician's experience is usually limited but uniform data gathered from all of the Class A hospitals of Michigan, might give valuable information about this subject.

Aseptic technic in the management of obstetrical cases, is without doubt on a higher plane. Our record is far from perfect but by constant vigilance this can be improved. When puerperal infections do develop, conservative measures in treatment give the best results. Curettage, hysterectomy, abdominal incision and drainage, intravenous injection of dyes, have all proven disappointing. The natural protective agents of the infected individual, aided and supported by external means, offer more hope for recovery than do active measures.

Surveying the field of obstetrics, one is forced to conclude, that slowly but surely, the quality of service given the pregnant woman, is improving; that scientific re-

* Read at 106th Annual Meeting, Lansing, September, 1926.

search workers are too few; and that radical measures are giving way to more conservative treatment.

The speciality of gynecology is still divided by the general surgeon and the obstetrician. A discussion of the relative ability of these men to handle this field is futile. Only the end results should be considered in forming an opinion.

For years physicians have treated women locally for endocervicitis. Consider the long list of drugs for local application that filled the older text books of gynecology. Tampoons used at varying intervals, over long periods gave slight relief. The chain of events, cervical laceration, ectropion, erosion, infection, ulceration, and malignant degeneration, was not studied but treated. A marked change has taken place. Lacerations are repaired. Ectropion and erosions are cauterized. Endocervicitis is cured by means of the cautery, the Sturmdorf operation, radium, or, amputation. By these methods the number of cases of cervical cancer should be greatly reduced.

Infections of the female generative organs and damage due to child bearing will always lead the list of conditions met by the gynecologist. What changes have occurred in the treatment of these conditions? The knowledge that the lower peritoneum and pelvis would withstand a vast amount of infection made the early gynecologist too bold. Today, instead of rushing into the acute pelvis, nature—still the greatest physician—is allowed to do her work. Posture, rest, supportive measures, heat, vaginal drainage when necessary, give excellent results. The reparative power of the pelvic structures often make further intervention unnecessary, but when abdominal entrance becomes necessary, it is done with far greater safety and with fewer chances of intestinal adhesions and complications.

Operations for misplacements of pelvic organs and plastic repairs have become somewhat standardized. Only a few have been retained, these have been proven and give the desired results. The deciding factors in the choice of these operations are, the age of the patient, and the desirability of future childbearing.

The advent of radium has changed our prognosis in malignancy of the uterus. Adenocarcinoma of the fundus because of its slow growth and protected position is still best treated by panhysterectomy. Cancer of the cervix, if very early, should be treated surgically, with radium as an adjunct. The moderately and far advanced carcinomas of the cervix respond well to cautery and radium or radium alone. The troublesome discharges and hemorrhages are controlled and many of these unfortunates are given several years of comfortable living.

The menstrual disturbances produced by small fibroids can also be treated sucessfully by radium.

By far the most progressive step made by the modern gynecologist is conservative surgery of the uterus and adnexa. The salvage of ovarian tissue in inflammatory disease; the retention of the menstrual function; plastic surgery of the tubes; temporary sterilizations; all of these are advancements and give most gratifying results.

The field is large. Many unsolved problems remain. Much is to be accomplished. Let us studiously and seriously consider these things that we may aid in their solution.

FUNDAMENTAL PRINCIPLES—SPECIAL REFERENCE TO THE GASTRO-INTESTINAL GRADIENT*

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Fellow members:

May I extend to you my keen appreciation of the honor you have conferred upon me by electing me to the chairmanship of the section on Diseases of Children.

As an internist for many years before attempting to develop the department of Pediatrics and infectious Diseases at the University, I naturally became interested in what I like to call comparative medicine. comparison of disease processes in adults and children. There are, as we all know, certain other diseases common to both periods but differing in their clinical manifestations and in their effects on the organism. It is not enough to know the common disease in the adult; that information, no matter how well founded, does not give the physician the knowledge he should possess to make the greatest success for the sick children who have been entrusted to his care. It might better be said that he who knows all the hazards of disease processes in infancy and childhood is better fitted to acquire knowledge of adult medicine. Many of the diseases of adult life are consequent on disease in childhood which has often been missed or overlooked.

Because of these facts I am going to dwell as I have in the past upon the importance of studying fundamental principles. Nowhere are they of quite as much value or

* Chairman's Address, Section on Pediatrics, Michigan State Medical Society, 106th Annual Meeting Lansing, September, 1926.

is their applied knowledge of quite as much effect as in diseases of infancy and childhood. The infant with his first disease is a perfectly normal animal reacting to foreign influences. An adult is not such an animal. His reactions to foreign influences are doubtless modified greatly by previous illnesses, particularly those acquired in childhood.

For example, when we study the fundamental principals governing edema—acid base balance, conduction of food through the alimentary canal, we will find our purest information comes from the study of these processes in the young previously normal infant or child.

Comparative medicine carries us still farther; into the field of disease processes in the lower animal. The study of diseases peculiar to the lower animals, even though these diseases do not occur in man, will throw light on analogous processes in man. We sometimes are unable to cause this idea to penetrate certain medical minds that deal with special divisions of medical thought. The purist pediatrist, for example, might possibly object to the publication of important fundamental information in a journal devoted to pediatrics because a goodly number of the observations were made on adults and he failed to see that they were recorded for the purpose of contrast, or a journal of clinical medicine might object to the acceptance of important fundamental observations because they were made on animals. What have rats to do with clinical medicine? Fortunately, during the past few years, special clinical journals have taken up the task of presenting this material in comprehensive reviews; "Medicine" for example, and in the field of the so-called pure science, "Physiological Reviews."

There are some comparatively new observations that have been made on animals, few on man, that are revolutionizing our ideas of the normal physiology of the gastrointestinal tube. Some 23 years ago I presented a paper to this society dealing with the then newer physiology of digestion. It is not new to you now, but it was 10 or more years before physicians in general and gastro-enterologists in particular were willing to accept it and add it to their knowledge of the pioneer physiology of digestion so wonderfully worked out in our own state by Beaumont in 1832. At that meeting in the discussion I was well walloped, as the boys would say, for expressing such adverse views, based as they were on the new observations of Pawlow and his co-workers. My only refuge in rebuttal was to call their attention to the fact that their information on the physiology of digestion began and stopped with the work of Beaumont.

"KNOWLEDGE COMES BUT WISDOM LINGERS"

I will not have so many adverse critics today because you are familiar with the fact that many of what were once thought to be cornerstones of physiology have been abandoned and others set up in their places. This has been occasioned by the great increase in our general knowledge and by the development of better methods of study. The physician is now awake to the possibility of other cornerstones being replaced. For example, the whole fascinating structure of vagotonia and sympathicotonia is tottering on its foundations.

As the group of gastrointestinal disease is one of the most important groups of childhood diseases, with the hope of seriously interesting you in the subject, I am going to call your attention to a still newer physiology of digestion. Much is known of the chemistry of digestion. That field has been tilled, retilled, and tilled again. Old knowledge frequently comes to the foreground as a new thought as for example fractional stomach analysis. If you will consult the first number of the first volume of the *Archives of Internal Medicine,* published 18 years ago, you will find an article by Dr. Munson and myself describing the method in full and showing its clinical application, and several years previous to this (1903) I had described it in "The Physician and Surgeon."

The study of the mechanical process of digestion have been neglected, notwithstanding the masterly work of Alvarez and his pupils, begun in 1913. What can be of more importance than the proper flow of the stream through the alimentary tube? If there are mechanical barriers to this flow, only trouble can result. These are the principles I wish to outline and briefly review with you today.

It has long been known that the chemistry of digestion proceeds normally if all nervous connection with the stomach is severed. We now know that gastrointestinal rhythm, tone applitude of contraction, and peristalsis proceed normally under similar conditions. Nerves are unnecessary for the performance of these functions by the gastrointestinal musculature. Nerve reflexes seem to have very little to do with the digestive processes. All the synapses may be cut, all the ganglion cells may be destroyed, the entire cord may be pithed—the processes of onward propulsion of ailment continues and abnormal processes may be induced the same as in the intact animal. Nerves act

simply as conductors of impulses to and from the brain or higher centers. The registration of pain and the symptoms of collapse for example.

There is then complete autonomy or independence of the gastrointestinal musculature. Once this idea is accepted, an entire new light is shed upon digestion and disturbed digestion. Once you cut yourself off completely from reasoning on sympathetic and autonomic control and from the necessity of Auerbach's plexus for the explanation of gastrointestinal phenomena, you will find much to interest you, and you will find satisfactory explanations for the many clinical happenings, and responses to things you have done for your patients, and have wondered why the good was produced.

There is a gradient of forces operating from the cardia to the pylorus, from the duodenum to the anus. That is, the duodenum beats fastest and the colon slowest with gradations in between. In other words, the gastrointestinal rhythm varies inversely as the distance from the cardia and pylorus. There is also a gradient of irritability and of tone. The tone of the duodenum is greater than that of the lower ilium. There is a gradient of metabolism. The metabolism as estimated by the output of co^2 is greatest in the duodenum and least in the colon. There is a catalase gradient and a gradient of electrical conduction. I predict in the future the term intestinal or stomach block will be as commonly used as heart block.

As pointed out before, these processes go on in the muscle itself when every vestige of nerve network is destroyed. The individual muscle fibres can be seen to operate in these ways when they are placed under normal conditions as to temperature, perfusing or immersing fluid, etc.

In addition to the above mechanical phenomena there are what Meltzer and Auer in 1907 described as rush waves. With the rabbit's abdomen opened under warm Locke's solution while watching the intestine one may see these rush waves traveling for 10 or 15 cm., often for longer distances. These are peristallic waves and are differentiated from the rhythmic beating. They are however apparently associated with tone waves which are rhythmic. It may be that the rush waves are initiated by the tone waves as the rush waves appear to start in some, for the moment, highly irritable spot. Alvarez estimates their speed to be 6.5+1.8 cm. per second. They acquire speed the farther down the bowel they travel. We have been able to verify all these phenomena in our laboratories. They are all links in a long chain that will, I believe, before long give us the interpretation of digestive happenings we have never understood.

The fact that there is no difficulty in reproducing these gradients experimentally on a normal animal would seem sufficient evidence to establish them as integral parts of a co-ordinated mechanism which has to do with the regular flow of the intestinal stream.

These gradients are influenced by happenings that bring about a balance of muscle tone. This balance of tone brought about by distension of the stomach or gut initiates contraction. A high contraction at the duodenal end, for example, will heighten the gradient and increase its rate down the canal. Certain foods react differently. Thin fluids in the stomach after a time bring about contraction while solid or thick substances bring it about more quickly and more vigorously. If the gradient is raised too high by and irritant, some distance below the pyloric ring, the upstream waves may become strong enough to give symptoms of reverse peristalsis.

One may ask why are the nerves? As stated before, they are conduction and regulatory mechanisms. There seems to be no question but that they act to prevent over contraction of the gastro-intestinal musculature. Alvarez likens the effect of their absence to the condition of muscle contraction seen in the cerebral palsies.

What is the clinical application or what is the theoretic application of these newer ideas to the every day problems of the busy practitioner, particularly the pediatrist? One may play with the facts here brought out and figure what would happen, for example, if the lower intestinal segments began to beat faster than the upper, or the middle segment slower than the distal segments, or what would happen if a strong stimulus or an irritant was applied at a given place in the intestinal tube. Many symptom syndromes can thus be worked out. As a matter of fact any syndrome that would logically result from such reasoning does result in practice when the conditions are favorable.

If we irritate or pinch a part of the gut, waves of contraction spread out in all directions. Most waves naturally spread out with the normal flow of the intestinal stream. If however the stimulus is great enough, the waves starting upstream may block waves already started down stream and cause a disturbance, such as the symptoms of reverse peristalsis—a feeling of aversion to food, heart burn, nausea, vomiting. This is particularly true of irritation applied

to the lower bowel where the gadient is slower. A smaller stimulus here, I fancy, is more productive of symptoms than a similar stimulus in the duodenum would be for the simple reason that the oncoming waves are less powerful and are accordingly more easily overcome. Those of you who have had much to do with gastric or duodenal ulcer patients must have been impressed with the infrequency with which these people complain of nausea or vomiting; yet the irritation is so great at times as to produce a circular contraction of the stomach or gut. On the other hand witness the effect of a slight inflammatory reaction in a child's appendix or of the pinching of a small bit of gut in a hernia ring. Who among you has not seen regurgitaton in a normal infant stopped when the bowels are moved freely by a laxative or by the onset of a mild diarrhea, and vice versa the factors producing a great irritation may thus induce waves in both directions and result in vomiting and diarrhea.

It has been shown that toxins of various kinds affect the gradient usually in its upper portions where the metabolism is the greatest. We have confirmed Alvarez' findings in our observations on sick animals. A few examples will suffice to illustrate the point. My dog developed a middle ear infection resulting in a severe mastoiditis. So long as the ear was well irrigated and well drained he had no disturbance in his gastrointestinal gradient. As soon as the discharge stopped, nausea and vomiting would develop. This was repeated many times over a period of two weeks. After Drs. Canfield and Furstenburg did an extensive mastoid operation, during which Bob was under ether for three hours, he recovered without any further vomiting. A rabbit with a severe mastitis following parturition showed a complete reversal of the gradient. The lower ilium beat 13.5 times, the upper ilium 7.9 times and the duodenum 2.1 times per minute. (Observation of 39 minutes.)

An interesting case has just come to my attention. This man developed uncontrollable vomiting. The symptoms of intestinal obstruction were so marked that operation was seriously considered. X-ray, however, showed no obstruction. Various things were tried to stop the vomiting when it was suggested that they give the patient some solid food. He ate a large meat sandwich. The nausea and vomiting stopped and did not return. One unfamiliar with the gradient and how it may be influenced would set this result down to a coincidence or to a mystery. No such thing. I have worked this principle time and again with the same result. I believe this patient's vomiting was stopped by heightening the gradient with solid food.

With these few examples we have the answer to the question, how does thick cereal stop regurgitation and vomiting? How does constipatition often produce regurgitation? How does slight irritation in the appendix or that produced by pinching a small bit of gut in a hernia ring produce vomiting? How do parenteral infections—mastoid, mastitis and many other instances I can cite, cause symptoms of reverse peristalsis? They all find their explanation in the principles advanced by Alvarez on the gastro-intestinal gradient.

We are just on the threshold of a complete understanding of the many digestive disturbances people complain of which are very real, very distressing, and very disconcerting, and because no anatomic explanation is at hand, they are classed as imaginary phenomena or neurasthenias and little or no attention is paid to them. Neurasthenia is a very difficult diagnosis to make yet it is very commonly made in child and adult. I have seen children and adults with marked exhaustion, with tremor, with an all gone feeling, with great depression or with pallor and sweating, which may be momentary or last for a few minutes, which I believe can be explained on the cerebral action of rush waves. Alvarez records similar observations in rabbits and advances this explanation.

A knowledge of the gradient will compel you to heed more closely than ever before the large group of digestive complaints that in the past have seemed to emanate from a psychically disturbed sensorium. When we learn how to affect the various segments of the bowel, how to make them behave as they should, we will be able to make our pneumonia and heart patients, for example, more comfortable and more sure of recovery by overcoming the embarrassment caused by distension. I can even see benefits that might arise in the treatment of acute diarrhea. Certainly in constipation cathartics will be less needed and food roughage will only be advocated in selected cases while other cases will be cared for by the smoothest possible diet.

If fundamental principles were constantly studied, and could they become a part of us, the greater per cent of the manifestations of disease processes would interpret themselves.

PROCTITIS OBLITERANS

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In every proctologic clinic with a large negro attendance, there will be found many cases of a progressive rectal sclerosis. These patients present a rather definite clinical picture and the rectal findings are so constant that we have attempted to group them under the term Proctitis Obliterans. This grouping has been of service in the interpretation of our statistics and has been helpful in formulating prognosis and treatment.

ETIOLOGY

During the past five years in a series of over 2,000 cases attending the rectal clinic of the Detroit City Physician's Office, there were about 75 that could be called proctitis obliterans. It was accordingly the most common cause of benign stricture of the rectum.

All of the cases were in colored females. There was no observation of the disease in whites of either sex or in male negroes. This fact is of considerable biologic and anthropologic interest.

The reaction of negroes to rectal pathology has been the subject of recent discussion. Rosser (1) in his splendid essay analyzes the peculiar racial tendency of colored individuals to heal by increased fibrosis and deals with the frequency of stricture formation. In 1921, I, too called attention to the prevalence of rectal stenosis in negroes, suggesting a connection with the constitutional background which contributes to the great incidence among them of keloid and fibroma (2).

Martin in his discussion of Rosser's paper (1) points out the infrequency in which strictures occur in males. In both Jones' (3) and Rainey's (4) series, 95 per cent of the cases were in women.

It would appear then that the fact of the occurrence of strictures in negroes is widely known and that its greater sex incidence in females has been suggested.

The age of our patients ranged from 19 to 40. Most were in the twenties. Some were nulliparous; others had born children. There was no constant finding of coincidental pelvic inflammation.

The venereal factors in its origin were given careful consideration. Buie (5) has emphasized the difficulty in pronouncing rectal strictures as truly syphilitic even though occuring in syphilitic individuals. In our series, the Wassermann reaction was positive in only about 39 per cent, a figure not higher than that secured from a similar social and ethnic group not affected with proctitis.

In a previous paper (2) it was pointed out that rectal infections of all kinds are common in persons affected with syphilis, but that the lesions themselves are not necessarily specific.

The possibility of a gonorrheal source was discussed but could not be established. Gonococci were not demonstrated in our cases nor was there elicited a history of sexual perversion. In any instance it would appear that chronic gonorrhea of the rectum would be found in whites as frequently as among negroes and would be capable of recognition even if not characterized by fibrosis and stricture formation. Clinical experience does not bear out this conclusion. Acute gonorrhea of the rectum in adults is comparatively rare and chronic gonorrhea seldom diagnosed.

Tuberculosis could not be demonstrated by smear or section, nor were the X-ray findings those of an intestinal phthisis (6).

At the present time, our understanding of the etiology can be summed up by stating that under the stimulus of a certain type of infection, the rectum may undergo a progressive fibrosis; that negro females are especially liable to this disease.

PATHOLOGY

The characteristic feature is a marked increase in the fibrous tissue of the submucous layers. This fibrosis is associated with hyalinization and continues until there is almost complete obliteration of the rectal lumen. There is a round celled infiltration down into the muscular layers, a thickening and thrombosis of the smaller veins and a partial obliteration of the lympatic vessels. The intima of the arteries is not perceptibly thickened. The mucosa is at first hyperplastic but later approaches the stratified squamous type. It is firmly attached to the fibrous tissue beneath. The rectal valves are involved in the sclerosis and difficult to identify.

The circulation in the distal tissues is impaired and the anal margin may be riddled with ulcers. The lesions are ragged and covered with greyish membrane. Cutaneous tags may form and reach considerable size. Deep seated infection often gains entry through these ulcers and it is not uncommon to find fistulous tracts opening well out on the perineum or communicating with the vagina.

CLINICAL PICTURE

The onset is slow and insidious. The pathology may be well advanced before

* From the Department of Proctology, Detroit City Physician's Office and Detroit Receiving Hospital.

symptoms are manifest. Often the presence of proctitis is noted simply in the course of a routine examination. Discharge is the most constant early symptom. At first it is scant and mucoid in character. As months go on, it becomes purulent and more profuse, irritating the perineum and necessitating the wearing of a pad. Sometimes the discharge is stained with blood but frank hemorrhage is uncommon.

Bowel movements are small and at frequent intervals. As time goes on, defecation grows increasingly difficult. Control is uncertain and complete evacuation impossible.

Pain at first is lacking. If the anus becomes ulcerated, it may be more pronounced but is seldom a prominent feature. It may be referred to the lower back or legs.

X-ray studies made at the Receiving hospital of ten cases of proctitis obliterans show a striking uniformity. The stomach and small intestine function normally. There is no ileocaecal regurgitation. The ascending and transverse colon exhibit the usual haustration. No evidences of defect, dilatation or spasm are present. The opaque meal reaches the splenic flexure unimpeded but from that point its progress is blocked. At 120 hours considerable barium remains in the pelvic colon and in some cases even at 168 hours.

Despite the extreme colonic stasis and a local pathology of marked degree, the general condition of most of these patients is far better than one would expect. They are well nourished, cheerful, free from pain, and able to be about. The syndrome commonly associated with constipation is lacking. We do not find the anorexia, dulness, headache, coated tongue, heavy breath and other symptoms which are ordinarily presented by those whose bowels are inactive.

In late stages of the disease, after secondary infection has supervened and the inflammation extended high into the sigmoid, the patients may become toxic and bedridden. The picture then is one resembling tuberculous enteritis. There is pallor, cachexia, and an afternoon rise in temperature. The stools are watery and incontinent, admixed with blood and pus. There is lower abdominal tenderness and sometimes distention. The urine may show albumin and casts, and the blood count a rise in the number of leukocytes. Death may ensue from sepsis or an intercurrent disease.

PHYSICAL SIGNS

The appearance of the anus depends on the extent of the marginal infection. The presence of discharge, ulcers, skin tags or fistulae may be noted, but is of secondary importance. The anus is of normal caliber; the sphincter sometimes spastic but more often because of the incontinence, relaxed.

The diagnosis is made by digital examination. Very early in the disease, beginning just above the sphincteric area, the palpating finger can detect definite changes in the thickness and consistency of the mucous membrane. The wall feels granular and thickened. The natural elasticity of the bowel is diminished. There may be no lessening of the caliber of the rectum, but the diagnosis can be well established in the early or pre-stricture period. In more advanced cases, the lumen is almost completely obliterated, and the opening found with difficulty. The stricture is hard and resistant. If the examining finger be forced through the fibrous ring, it will be observed that for a distance as high as the examiner can reach, the bowel wall is thickened and very much narrowed. Usually the forced stretching of the examination will liberate considerable quantity of sanguinous pus which has been dammed back from above.

LABORATORY FINDINGS

Laboratory findings show nothing unusual. The absence of specific organisms and the percentage of positive Wassermann reactions has been previously discussed. The blood picture may indicate some secondary anemia. A leukocytosis may be present. Indican and traces of albumin are often found in the urine. The blood nitrogen and sugar are not elevated.

DISCUSSION

Pennington (7) in his text book of rectal disease, classifies chronic proctitis as follows:

1. Atrophic.
2. Hypertrophic.
3. Proliferative.

Other authors use essentially the same nosology.

The atrophic type is characterized by thinning and sometimes ulceration of the mucosa. It has a pale, dry, often glazed appearance. Stricture is rarely a sequel.

The hypertrophic type often follows an acute proctitis. In it the mucous membrane is swollen, spongy and congested, lying in folds and rolls. While somewhat refractory, it yields well to treatment and the prognosis is excellent for complete recovery.

Gant (8) speaks of this type of proctitis as does Pennington but adds that certain of the cases show marked thickening of the rectal wall and go on to stricture formation. These instances would probably come under our grouping as obliterans for the prognosis

and course is distinctly different from the ordinary catarrhal hypertrophic proctitis.

The proliferative group is generally of specific origin, ordinarily lues, although in some cases it is due to tuberculosis, bilharzia, actinomycosis, or the like. In it are to be found multiple granulomata of various sizes and shapes. The hyperplasia is essentially of epithelial origin and the lumen of the bowel may be filled with mushy overgrowth. Strictures are a common result of this proliferation. Such stenoses, however, are soft and can often be dilated. They respond well to treatment directed towards their specific cause.

It can be seen that the term Proctitis Obliterans fills a rather definite niche in the clinical scheme and can be placed after hypertrophic proctitis in a complementary position to proctitis proliferans. In the latter there is emphasized overgrowth of epithelial elements; in obliterans the dominant feature is sclerosis. Both it is true go on to stricture but the one is soft and dilatable, the other fibrous and resistant, the one yields to specific treatment, the other is uninfluenced even in the presence of a positive Wassermann reaction.

The classification of chronic proctitis might be schematically represented as follows:

Non-stenosing: (a.)—Atrophic, (b.)—Hypertrophic.

Stenosing: (c.)—Obliterans, (d.)—Proliferans.

TREATMENT

The general indications are for the reestablishment of a satisfactory fecal stream. adequate drainage, local medication directed towards the proctitis, and general measures to improve the bodily health. The means of meeting these indications can be found in any standard text book of proctology.

PROGNOSIS

No matter what course of therepeutics is outlined, it must be born in mind that the basic condition producing the disease may still be operative and it tends to recur. The relief offered by proctotomy and other surgical procedures is nevertheless so great that the patients are perfectly willing to enter the hospital at occasional intervals for treatment. I have seen cases emaciated and in extreme cachexia, pick up in weight and health, able to return to their usual work a few weeks after drainage has been established.

CONCLUSIONS

1. There is a type of progressive rectal sclerosis which because of its characteristic features, we have termed Proctitis Obliterans.

2. This condition occurs commonly in negro women.

3. Separation of this group from the larger classification of rectal stricture will serve to make diagnosis and treatment more rational and statistics more useful.

In closing I wish to thank Dr. J. Frank Kilroy, Supervisor of the Detroit City Physician's Office for the abundance of material he has placed at my disposal, and to express appreciation to Dr. E. G. Martin and Dr. Louis Hirschman for their many suggestions.

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IMMUNIZATION AGAINST TUBERCULOSIS

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From the rapid advance of preventive medicine in recent years, particularly in the field of immunization, it is apparently only a question of a comparatively short time before tuberculosis, the great scourge of the white race, is mastered. It is my opinion that the first and, most important stage in this very needed discovery since the milestone of 1882[1] has already been passed—that thanks to Calmette and his co-workers, particularly Weill-Halle, we are now on the direct and straight path to success.

For the carrying out of Calmette's present very progressive work as well as preparing for his future observations and those of other research workers, it is opportune at this time to bring the subject of tuberculosis and its immunity before the general practitioners as well as the consultants in all the branches of medicine. This is the necessary first stage to be followed by that of educating the public to the possibilities, with the help of nurses, social workers and midwives. the accomplishment of which will take some time.

It is of course advisable in tuberculosis

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to move slowly in acknowledging successful results for our previous disappointments have been many. On the other hand, when the right measure does come along it is equally necessary for us to take advantage of it as quickly as possible. A very important point that will cause hesitation is the fact that a live bacillus is used. This is far from a precedent, however, for it is a recognized fact that many centuries ago inoculation with live bacteria was practiced by the Chinese, from whom the custom was carried to England by Lady Montague in 1717, in small pox disease.

Immunity may be natural or acquired. Natural is that with which one is born while acquired is induced after birth, either actively or passively. Active acquired immunity results from an attack of the specific disease or by the injection of bacteria (dead or living) or toxin, the body reacting as if actually infected with the disease. As an example of dead bacilli we have typhoid bacillus, as well as many of the milder pus infection vaccines while of the living we have cholera (Haffkine serum) small pox and now tuberculosis, and toxin in diphtheria.[2] Passive acquired immunity on the other hand follows the injection of biochemical antibodies from an already infected animal or man, for example, horse serum in diphtheria and human serum in measles.

Fortunately for the white race there is a degree of natural immunity against tuberculosis. This natural immunity, however, is very easily lost by the many various failings of human nature and is therefore a flimsy one, requiring aid through health education. It is a recognized fact for instance that the natural immunity is over-balanced by so called predisposing causes as fatigue, poor food, poor hygiene and sanitary conditions, severe illnesses, mental anxiety, lack of sleep, etc. Most people have also more or less acquired immunity for original infection in tuberculosis usually occurs in childhood, causing a variable degree of active acquired immunity.

A fact frequently made use of is that of immunity resulting from a mild degree of infection brought about by attenuated bacteria. These organisms are attenuated by growing them on poor media or at high temperatures, passing them through animals, etc. Diminished degree of infection can also be produced by using related strains as cow pox virus in small pox, human tubercle bacilli when immunizing cattle, (followed by injection of bovine bacilli), etc. The number of bacilli used is also most important.

That immunity is anything but a simple matter is exemplified by the white and gray mice. "White mice are naturally immune to glanders whereas the field mouse possesses a high degree of susceptibility. When we consider how slight must be the differences in the structure, the function, the chemistry and the metabolism in the white mouse when compared with its gray cousin, we begin to appreciate the subtle differences and perhaps complex factors upon which immunity depends."[3] When we add to the complexities of immunity the innumerable factors of tuberculosis we get an idea of the immensity of the problem of tuberculosis prevention.

Koch gave us Old Tuberculin "O. T.," then New Tuberculin, followed by "B. E." Old Tuberculin is made by concentrating a filtered glycerin broth culture of tubercle bacilli. New Tuberculin is an emulsion of the residum resulting from extraction with water of macerated living virulent bacilli while "B. E." is a bacillary emulsion of the entire substance of pulverized young virulent bacilli in glycerin. Tuberculin, as a curative procedure, has been very disappointing except in some cases of lupus. In the present light of the disease, it is apparent that it has definite limitations. The principal of its use is to increase the body's responsiveness to the tuberculosis toxin by giving very small and gradually increasing doses which will not at the same time produce a clinical reaction. By this method an increase of the immunity degree of the individual against the disease was contemplated. Tuberculin like mallein in glanders is a soluble tobic substance but different from the so called true toxins of diphtheria, tetanus and botulismus in various ways, particularly in that it is harmless to a normal subject but poisonous to one infected. Because of this however, it is very useful in the von Pirquet test and its modification, Calmette's ophthalmic reaction.

An actively acquired immunity is ordinarily superior to a passively acquired immunity. Because of this fact, where previously immunity against diphtheria was produced by antitoxin, toxin—antitoxin is now used. Several injections of bacteria also produces an immunity that is stronger and of longer duration. Usually protection so acquired lasts under five years and should be renewed.

Amongst Dr. Calmette's concluding observations we have:[4]

1—"Those subjects free from all preexisting tuberculosis infection may be artifically immunized from natural or artificial bacillary infections.

This immunization is effected by inocula-

tion or (especially for very young subjects) by administration by mouth of emulsions of a living bacillus culture, of virulent bovine origin, of which certain characteristics have been slowly and hereditarily modified by a long series of culture in a very alkaline medium, rich in lipoids (beef bile).

This bacillus, known as BCG,[5] has lost its tuberculigenous properties and conserved its antigenous properties. It is perfectly well tolerated by all species of mammals and birds, and, when introduced even in heavy doses in sensitive organisms, it never occasions the formation of reinoculable tubercles."

2—"In view of the favorable results obtained with animals, and the proof having been made by many prior trials, of the innocuousness of BCG for man, we have extended to young children, particularly the newly born of tuberculous mothers, one attempt at immunization against bacillary infection.

"Our experience over a period of four years has covered a growing number of newly born children. In France alone, up to January 1, 1926, 5,183 nursing infants have been vaccinated by mouth, of which 1,317 in the period of from 6 to 18 months ago, according to the technic which we have described.

"The mortality from tuberculosis among infants from birth to one year, born of tuberculous mothers or raised in an infected family, has been at least 25 per cent, and generally higher, whereas the mortality among children immunized by BCG has been below 2 per cent.

3—"We can affirm that this method of immunization is safe. It results neither in accident of any kind, febrile reaction nor physiological change. It seems to us that its efficacy has been demonstrated. The duration if immunization which it confers cannot yet be precisely stated, but it seems to be sufficiently long to protect young children, until after the age of three years, from family infections if these have not been massive since birth.

4—"It must be understood that this vaccinaton does not dispense with such hygienic measures which serve to prevent or minimize mass infection."[6]

Commenting directly on Calmette's very clear observations, we find that he is using an attenuated bovine bacillus (giving an active acquired immunity) in the new born. This is necessary becaues in tuberculosis the original infection as shown by a positive von Pirquet reaction, particularly in contacts to open cases, often occurs very early in life though the disease may not develop till adolescence or later. It is important that no infection exists in the body when using BCG. It would be equaly advisable even at this stage to vaccinate younger children who are being exposed, but not before three negative von Pirquet reactions. Von Pirquet tests should not be made during or immediately after measles, influenza, and whooping cough.

In inoculating the newly born of tuberculous mothers, Calmette has taken the most fertile field for 77 per cent of the infected in the first year are from tuberculous mothers. His figures on the mortality of these infants from birth to one year is certainly not exaggerated for in some parts of France it is as high as 32 per cent. To reduce this figure to below 2 per cent is truly wonderful for these children are most often continuously exposed to tuberculosis in remaining with their parents. Von Piquet tests remained negative in 80 per cent of the infants vaccinated by mouth.

In no other disease is one exposed so continuously and often to very virulent bacteria as in tuberculosis. For this reason any immunity in this disease must necessarily be a very strong one, however short, to prevent infection. Considering that ordinarily immunity lasts from two to five years in disease where exposure is very short, to produce an immunity lasting three years in tuberculosis is a greater feat than it seems at first. It is known that animals ordinarily immune to tuberculosis will develop the disease if sufficient number of virulent bacilli are injected. This applies to humans as well for whatever the physical condition, even in trained rowing crews or in fully trained prize fighters, tuberculosis can be thus induced. Therefore, if an occasional child in spite of vaccination develops the disease it is only to be expected, if the parent is transmitting large numbers of a very virulent strain of bacilli, or if occuring in mass infection. Hygienic measures are thus as important as previously for the less the chances of infection by the parent (or other) the less a strain is thrown on the degree of immunity and thus the better the results.

It has been frequently shown that animals ordinarily immune to tuberculosis and other diseases will become infected if a very large number of virulent bacilli are used. Trudeau found immunity against tuberculosis in animals could only be produced by the use of living bacilli. At least 10 tubercle bacilli are necessary to cause infection in a guinea pig. In 1911 immunity was produced in monkeys by Webb and Wiliams by using living bacilli. They injected 1 to 200 bacilli subcutaneously, re-

peating at intervals. Two children were also given 600 virulent tubercle bacilli, without resulting disease.

The Oeuvre Grancher in France has produced very good results from placing children of 3 to 13 years old, mostly of tuberculous parents, on farms in charge of healthy peasant families. Recently there has also been an extension of this to children under three years of age. It is a very logical thing to do, removing at birth offsprings of tuberculous parents from the infected family but particularly in this country it appears an almost impossible task at present. Calmette's BCG vaccine given by mouth in new borns is a simple, expedient and cheap method of producing immunity which I hope will soon be as common in all new borns as ordinary vaccination against small pox. In addition, it is a good wedge for the earlier application of diphtheria toxin-antitoxin serum and any other preventive measures that may be advisable.

Figure 1. Similarity of vaccination in small pox and tuberculosis.

Small Pox	Tuberculosis (BGG)
1—Virulent material used of cow pox. (Can also use virulent material of human small pox). Practically an attenuated small pox.	Attenuated living bacteria —bovine strain.
2—Used only as preventive, not curative.*	Used only as preventive, not curative.
3—Produces active acquired immunity.	Produces active acquired immunity.
4—Repeated vaccination required.	Repeated vaccination required.
5—Vaccination advised during first few days of life.	Vaccination in first 10 days of life.
6—Hygienic precautions taken during contact period.	Hygienic precautions taken during contact period.
7—If direct contact, revaccination advisable after 5-year period.	Re-vaccination after three years.
8—Intracutaneous injection or rub dry on mucus membrane of nose.	Subcutaneous or emulsion by mouth—latter especially in new born.
9—Infection all periods of life.	Infection all periods of life. Likely original infection very often during childhood as shown by von Pirquet results.

*—If vaccination is performed within the first few days of the incubation period of a patient already infected with small pox, the developing cow pox because of a smaller incubation period, precludes the completion of the clinical stage of small pox.

Figure 2 shows the deaths from tuberculosis at different age periods, irrespective of sex, in the United States Registration area (87.7 per cent of the active population of the United States). It is here seen that between the ages 5 to 14 years—the school period—there is a distinct low mortality rate from this disease and an opportune time as well as a comparatively easily arranged period for the giving of vaccine to suitable members as part of school routine. The age of the highest mortality is approximately 24 making it apparent that several years must pass before the ultimate result can be judged but the curve should certainly be a very different one.

During the past year the von Pirquet test was applied to 1,135 children of a Parochial school (Polish) in this area.[7] The result of all reactions irrespective of age (7 to 14) or sex was 65.2 per cent positive for contacts and 30.9 per cent positive for non-contacts. In those with undernourishment and underdevelopment, the precentage of positive was greater than in the normal built in both contacts and non-contacts. Since the percentage of undernourishment and underdevelopment increased progressively with increasing ages, it would be advisable when its efficacy is further proven, to vaccinate all children on admission to school, irrespective of their physical condition, providing the von Pirquet reaction is negative (three tests).

There were 1,571 deaths in the United States Registration area from tuberculosis under one year of age—figure 2, which, according to Calmette's results, would have been reduced to below 127, and so on during the following years. It is apparent that could such results be continued, in time the actual cases of tuberculosis as well as the comparatively few new ones could soon be isolated in the already existing sanatoria beds, giving a marked impetus to the lessening of exposure to the rest of the population, exposure to the infection after all being the fundamental cause of the disease.

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THE TREATMENT OF THE UNDERNOURISHED CHILD

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There is no problem in pediatrics which presents so many difficulties as that of the undernourished child. The "spoiled", thin, underweight, nervous, pale child, who refuses to eat, is one of the most common problems that may confront a physician. Quite often the mother brings the child to the physician with the request for "a tonic to build him up", and often the physician accepts this ready made therapeusis, and acquiesces in this form of treatment. Suffice it to say, that the tonic often fails to achieve the desired result, and mother and physician agree that the child can not be made to increase in weight because possibly his father and mother are thin also. It is folly to thus superficially condemn that type of a child and permit him or her to develop physically abnormal.

Due to recent work and writings upon this subject, the profession has been able to gain a new conception of the under-nourished child, and with the aid of nurses and lay nutrition workers, to achieve a different result by a more rational routine. There is nothing difficult or impossible about establishing such a routine, and accomplishing an increase in weight if the physician outlines a thorough-going program, that has the co-operation of the parents.

It is the purpose of this article to outline such a program, and indicate what can be done with underweight and malnourished children, provided that the doctor will assume a positive supervising association with parent and child.

Dr. Emerson gives five causes for malnutrition as follows:

PHYSICAL DEFECTS

In the first place the malnourished child requires a thorough physical examination with all clothing removed. This examination should include an examination of the ears, teeth, tonsils, chest, heart, and a record of the height and weight. Tables stating the relation between height and weight can be obtained from the Children's Bureau at Washington, whereby an estimate of the degree of under-weight may be determined.

It is customary to consider that children 7 per cent or more under-weight are malnourished. This is usually true, but malnutrition is not always a matter of figures. Dublin and Gebhart, in a recent publication have emphasized this point, stating the belief that an efficient physical examination is the most satisfactory way of determining malnutrition.

Pallor of the conjunctiva, circles under the eyes, flabby musculature, mouth breathing, fatigue posture, apparent anemia, protruding abdomen, all lead the physician to a diagnosis of malnutrition, whether the child happens to be underweight or not. Other signs accompanying malnutrition are restlessness, excessive irritability, night terrors, inattention, emotional instability, loss of temper, and unusual worry about himself and others.

Infected tonsils are often the cause of continued malnutrition, and remarkable gains in weight are not uncommonly made, following their removal. However, tonsils need not necessarily be removed to cause a child to gain weight, unless the tonsils show evidence of hypertrophy along with adenoids sufficient to obstruct breathing, unless there is evidence of local infection, with enlargement of the cervical lymph glands, or a history of frequent attacks of tonsillitis and pharyngitis. The physician having taken cognizance of these points, should decide in each individual case as to whether or not tonsilectomy is advisable.

Some other causes of malnutrition are defective vision, defective hearing, carious, abscessed teeth, which the physician will readily appreciate are potential and probable causes of malnutrition.

LACK OF HOME CONTROL

Every physician is acquainted with families in which the child rules the home. In such families it is impossible to accomplish any constructive work in correcting malnutrition, unless the parents can be persuaded that they must rule. If the child may say when he will go to bed, what he will eat, when and how he will play, and otherwise arrange his daily routine to suit himself, it is useless to attempt to correct malnutrition in such an environment. Either the environment must be changed or a new relation established in the home between the parents and the child. Remarkable gains in weight are possible when such children are removed to institutions where a daily routine of proper food and rest is established. Such striking changes are made in a child both physically and mentally after such a routine has been instituted for a few weeks that they are scarcely recognizable as the same children, proving that proper discipline is the chief corrective factor.

OVER-FATIGUE

Over-active children are often so tired when night arrives that they refuse to eat. They have played so hard, or they have so many outside activities, such as music lessons, club interests or shows that they are exhausted at night. Frequently these children do not sleep a sufficient length of time, or sleep well, are restless and complain of pain in their legs.

INSUFFICIENT FOOD AND IMPROPER FOOD HABITS

The food may be insufficient in either quantity or quality. In cases of poverty the quantity may be lacking. In the well-to-do homes children often get an insufficient quantity of food due to the development of capricious appetites.

In the latter type of home the preparation of a child's meals is often left to the care of an untrained servant and the child acquires habits of eating which are improper. The food in such homes is frequently served unappetizingly and improperly cooked, a condition which leads to the eating of an insufficient amount of food.

Improper food habits, such as eating large quantities of candy, or too rapidly without proper mastication or too much of one kind of food are frequent causes of the development of a chronic indigestion accompanied by a troublesome constipation. Children who do not eat a sufficient amount of cereals or vegetables have a small intestinal residue, and are quite commonly constipated.

FAULTY HEALTH HABITS

One of the most faulty health habits is failure to insist on a regular time each day for a bowel movement. The mere correction of this irregularity will in itself relieve constipation. Other faulty health habits are sleeping in poorly ventilated rooms with too much cover, failure to get sufficient fresh air during the day, which is a stimulation to the appetite and sound sleep, failure to brush the teeth at least once a day, failure to drink a sufficient quantity of water, or eating before going to bed.

PROGRAM

To correct a great many of these faulty health habits it is necessary to establish a definite program and the following routine for the under-weight and malnourished child is recommended.

1. A complete physical examination by the family physician.

2. The remedying of defects found by the physical examination that are influencing the child's health.

3. Insisting on a rest period of one half hour in the morning and afternoon, lying flat, and sleeping, if possible. Ten hours rest at night, with the windows open, must be secured.

4. Omit outside classes, clubs, parties, and music lessons. Shorten school hours or give them up entirely if necessary.

5. No vigorous exercise, but outdoor exercise in moderation until weight is normal.

6. The usual three meals a day, eaten slowly, consisting of one to one and a half quarts of milk a day, butter, bread, cereals in the form of oatmeal, Cream of Wheat, Farina, or Ralston food; vegetables in the form of baked potatoes, carrots, parsnips, turnips, rutabaga, squash, beets, spinach, beans; fruits with an occasionally banana; meat once a day, roast beef, mutton or fowl; one scrambled or boiled egg a day; few sweets, and then never between meals.

7. Two extra lunches at 10:30 a. m. and 3:30 p. m., consisting of milk and crackers, or bread and butter.

8. Insistence upon an adequate breakfast, consisting of milk and cereal, toast and fruit.

In my experience there are four methods for making children eat after physical defects have been corrected and a rational hygiene has been established, viz.:

1. Forced feeding because of the firmness and fear of parental discipline.

2. Feeding by persuasion and distraction of attention.

3. Eating because of some reward offered.

4. Deprivation of food until the desired article of food is eaten.

The first method is only applicable to a few parents and children because parents who have well-disciplined children do not have undernourished chidlren. Consequently, feeding by this system is in itself evidence of the parents' ability to correct the malnutrition.

The second method is one which is often applicable and the one which it is most desirable to use. There are many kinds of persuasion which each mother adapts to the desires and need of an individual child. Some children eat because their parent urges them to keep pace with him, some to eat a bite for himself and one for his favorite doll or some fictitious Mother Goose character, some because at the bottom of the dish or glass is a picture surprise. Such adaptations are as numerous as the children and are especially to be recommended.

The third method is often combined with the second, but is open to the criticism that a child who is constantly rewarded for eating learns to expect that such rewards should accrue from other activities which he may dislike to perform and stimulate negativistic tendencies which are present in varying degree in nearly all children. If a new reward is arranged for each effort this criticism does not apply as aptly as if the same reward is offered each time because the monotony of the reward distracts the interest. It is variety which promotes renewed activity in chidlren.

The fourth method is very successful if carried out with firmness and decision by the parent. Thus, for instance, in order to make a

stubborn child eat cereal after he has failed to respond to all persuasive and reward methods, a parent may offer cereal only for each meal until hunger induces him to eat. After passing through such a starvation period most children offer no objection to the eating of that particular food in the future. Such a method, experience leads me to believe, is extremely efficient in disciplining the stubborn child.

Calvin Coolidge has recently said: "In these days, children get about what they ask for, not what the wise judgment of their parents should dictate." This is applicable to the consideration of malnutrition. There is an idea prevalent that children should not be made to eat the things that they do not wish to eat. This idea is not confined to the parents alone, but is also shared by the profession. It is useless to begin such a program as outlined above unless this idea can be corrected in the minds of the parents and physicians. It must be assumed at the beginning of such a program that it is to be carried out to the letter. However, it must be recognized that making a child eat who does not wish to eat is not an easy task. Milk can sometimes be fed through a straw when they refuse to take it any other way. The drinking of milk in the company of other children, as in school, or in groups, will often accomplish that which could not be accomplished at home. Quite often it is necessary to remove a child from its home and place it in an institution, where proper discipline can be established. I should like to add that of all the factors concerned in malnutrition, with the possible exception of the correction of physical defects, there are none that accomplish such splendid results as the institution of a firm, proper, daily discipline which is carried out to the least detail.

It is common practice to advocate milk in large quantities for the correction of malnutrition, but I should like to correct the impression that milk is a panacea for malnutrition. Milk is a good food. There is nothing that can be substituted in its palce. It is not a substitute for rational hygiene.

Summer camps may be used to a very good advantage for the purpose of bringing children up to weight. Satisfactory gains can be secured if there is intelligent nutritional control, and a definite hygienic program.

Let the physician rest assured that if he will institute a program such as outlined, and make an effort to carry it out to its completion, he will be gratified to find not only an increase in weight, but likewise a correction of many nervous symptoms, an increased resistance to disease, and as a result of having to be disciplined, a better appreciation on the part of the child of his social relationships.

SURGICAL ADVANCES DEVELOPED DURING THE WAR APPLICABLE TO INDUSTRIAL SURGERY

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After an exhaustive review of the literature pertaining to the treatment of wounds during the World War, three things have been recorded as of preeminent value, and may be justly classified as surgical advances developed during the war.

The first, and probably the most important, is the proper surgical cleansing of wounds, a procedure termed by the French "debridement." Second, may be mentioned the mobile treatment of joint infections; while the third is the demonstration of the value of the prophylactic administration of antitetanic serum.

If proper use is made of the knowledge gained by members of the medical profession during the Great War, humanity of the future will have gained something of value from the sacrifice, inasmuch as the facts learned are applicable to injuries sustained in civil life as well as in warfare.

DEBRIDEMENT

First let us consider "debridement."

At the outbreak of the World War very definite ideas were held concerning the functions of the medical service, and there were strict regulations as to the proper method of treating wounds.

These teachings were the result of an intensive study of war surgery, based upon the experience derived from former wars. Special stress had been accorded the knowledge gained through a study of wounds in the Russo-Japanese War, and also in the Balkan War.

The conclusions arrived at, following the Russo-Japanese War, seemed to have proved quite conclusively that the treatment of the wounded in the zone of activity should be conservative in every detail.

Observations gathered in the Balkan War seemed to confirm this belief, and, as a consequence, the medical services of all the great armies of the world were so organized as to carry out this principle.

One of the most exhaustive works published dealing with the subject of military surgery was that of Octave Laurent[1] of Brussels, Belgium. His observations were gathered through an experience of eleven months service with troops during the Balkan War, and he called special attention to the lack of serious consequences following wounds caused by bullets shot from the modern high-velocity rifle. He also stated that artillery fire was more deadly than infantry

fire, inasmuch as the artillery was responsible for more than one-half of the deaths, but less than one-fiftieth of the total number of wounded.

Shortly after the commencement of the World War, Edmond Dolorme[2], at that time inspector-general in the French Military Health Service, presented a paper before the Academie des Sciences in which he emphasized the fact that wounds from rifle bullets were usually cured within a few days or weeks, and, at the same time, advocated conservative treatment of wounds resulting from shrapnel balls. He believed that fractures should be handled conservatively, and that laparotomy in abdominal wounds was inadvisable in military surgery. He called attention to the fact that in the Transvaal War, laparotomy in abdominal wounds gave fewer recoveries than were recorded following nonoperative treatment. He also stated that the German bullet made but a small orifice when entering the abdomen, and that the perforations in the intestines were so small that they tended to close spontaneously. Absolute rest and complete abstinence from food and drink for several days, he considered the treatment of choice.

That the surgeons of the German army held similar beliefs concerning the care of the wounded in forward areas, was shown by the literature appearing in German medical journals at the same time.

The "Berlin Letter" of August 22nd, 1914, published in the *Journal of the American Medical Association,* stated that because of the specially favorable conditions of transportation, no effort would be made to treat the wounded in the field hospitals, but that it was best to convey them by train to their homes, where better care could be given.

Thus it can be seen that the universal consensus of opinion at the outbreak of the World War, as well as for some time thereafter, was that the wounds caused by modern small arms were usually non-infected, and that unless severe damage had been done to some vital organ, all treatment should be expectant.

Proper chemical sterilization of the skin area around the point of entrance of the projectile, as well as around the point of exit, when one was present, followed by the immediate application of sterile dressings, were thought sufficient to prevent infection and promote rapid recovery, in the majority of cases. Usually the area around the wound was painted with a solution of the tincture of iodine, and then a dressing applied, this being deemed sufficient, except in the cases complicated by fracture, where some form of splint was required.

The "Berlin Letter" published in the *Journal of the American Medical Association,* stated that wounds received in the regular course of war showed a good tendency toward healing, while Posnett[3] expressed the viewpoint of British surgeons by stating that bullets may pass through vital tissues without permanent injury, and advocated extreme conservatism in operative treatment

Again, the Berliner Medizinische Wochenschrift of September 14, 1914, commented upon the mild character of war wounds when vital organs were not involved, while Schwieninz[4], in a discussion of wounds in the different wars since 1850, gave statistics showing the mortality during the Crimean War, the Franco-Prussian War, and others, including the Russian-Japanese War, in which he demonstrated the lowering of the percentage of the wounded who died from their wounds. This was given as 24.9 per cent amongst the French wounded during the Crimean War; 11.1 per cent amongst the German wounded in the Franco-Prussion War, and 6.8 per cent amongst the Japanese wounded and 3.2 per cent amongst Russian wounded during the Russian-Japanese War.

That the expectant method of treatment was not to prove sufficient, was almost immediately made manifest, for in October, 1914, the British Government ordered six thousand packages of tetanus antitoxin from various American pharmaceutical companies[5] for use by the French and English troops exposed in the trenches.

Again, Dolorme, in a paper presented before the Academie des Sciences, September 28th, 1914, stated that the siege type of warfare then practiced demanded modifications of the earlier ideas of military surgery. He called attention to the badly infected conditions of many wounds, especially in cases where the wounded had lain in the trenches without care, sometimes as long as four or five days. It was his belief at this time that surgery must be performed at the front, and that while bullet wounds usually healed quickly, without special care, wounds resulting from artillery fire, which were large and contained much foreign matter, such as shell fragments, earth and bits of clothing, often resulted in diffuse phlegmons, gangrene and tetanus. Dolorme also stated that it was necessary to operate rapidly, to remove shell fragments and foreign substances, and thereafter to disinfect the wound carefully. He called attention to the fact that the greater number of deaths among the wounded at that time were due to tetanus and gaseous gangrene, which were almost unknown complications in civil surgery, and had been very rare at the beginning of the war.

Dolorme advocated the injection of hydrogen peroxide in the treatment of gas gangrene. These injections were made about a centimeter

apart, around the infected area or, in the case of a limb, around the same, from forty to one hundred cubic centimeters of peroxide being used.

He also advocated the distribution of antitetanic serum in the first line ambulances, so that it could be given to the wounded as early as possible.

Such beliefs were decidedly radical, when one considers the teachings then in vogue, and yet subsequent events have proven the farsightedness of Dolorme.

A month later, Alexis Carrel[6], in summing up his experience with wounds of war, stated that the majority of wounds were not serious. This was probably due to the fact that at that time he was attending wounded who had participated in the fighting at that part of the country known as Haute Alsace, which is, comparatively, almost virgin soil, when compared to the intensively fertilized districts in Belgium and the west of France. Such observations as these showed the extremely important part that the soil, over which and in which war is waged, plays as a point of primary consideration in the management of the wounded.

The "London Letter"[7] to the *Journal of the American Medical Association* of October 16, 1914, stated that the condition of the wounded returning to England was most satisfactory, and that suppuration had occurred in less than 10 per cent of the wounded. In contradistinction to this, the "Paris Letter" of October 8, 1914, stated that most of the wounds were infected. From Germany[7] came the report, at about the same time, that fully 85 per cent of shrapnel wounds became infected.

However, many prominent surgeons still clung to the belief that wounds of war should be tampered with as little as possible, as was illustrated by the address of Picque before the Academie de Medicine of Paris, October 13, 1914, in which he strongly advocated conservative methods in the handling of wounds. At the same meeting, Tuffier stated that non-lacerating gunshot wounds healed with a single dressing, but that shrapnel wounds and fractures were serious because frequently infected. He further stated that thoracic wounds, even when they traversed the thorax, healed without trouble, while abdominal wounds should be kept quiet until they could be cared for in a fully equipped hospital. Tuffier, at this time, advocated the administration of antitetanic serum upon the battle field as a preventative against this serious complication He mentioned the necessity of the scrupulous cleansing of wounds, and the establishment of sufficient drainage. He also recommended the use of hydrogen peroxide in cases of gaseous gangrene and acute septicemia.

About the same time, Heyman[8], speaking of wounds observed by German surgeons, greatly praised the German first aid package, stating that almost without exception wounds were in excellent condition, and that even jagged shrapnel wounds healed rapidly. He advised the removal of scraps of cloth, hairs, slivers of wood or scraps of metal by means of tweezers, and further stated that bone splinters had best be left in situ. Heyman, evidently, was still an ardent advocate of the principles taught at the beginning of the war, and in the light of subsequent knowledge, one must be forced to believe that his statements were possibly guided to some extent by a desire to assure his own countrymen that everything possible was being done for the wounded, since infection must have been rampant at that time.

In an address before the Societe de Chiurgie de Paris during the month of October, 1914, Paul Roche stated that a sharp distinction must be drawn between bullet wounds, which might be termed the only aseptic form, and wounds caused by shrapnel and shell. In wounds of the latter class, abstention from operation was not conservation, since, because of the danger of gas gangrene, operation should be performed.

Amongst other French surgeons, all advocates of prompt and early operation, are the names of Rochard, Riche and Touissaaint. Their methods differed slightly, but the principle of early operation to establish drainage in infected cases was urged by all.

The "London Letter" of November 6, 1914, published in the *Journal of the American Medical Association,* November 28, 1914, stated that most of the wounds received in the war were slight, and that recovery took place rapidly, yet that some were of great severity and attended by complications, of which tetanus and emphysematous gangrene were the most important. It was stated further, that the bacteriological conditions were peculiar and novel to their bacteriologists, who were working at the front in northern France. In England, wound infection was almost exclusively due to staphylococci and streptococci, while in France the infecting organisms were usually of the anaeorbic variety, such as the bacillus of tetanus, the bacillus aeorgenes capsulatus, and the bacillus of malignant oedema. This was attributed to the fact that the soil of the locality in which the fighting occurred had been thoroughly manured for many years.

That English opinion was not united at this time, however, was shown by the remarks of D'Arcy Power[9], who stated that meddlesome surgery was usually bad surgery; wounds should not be probed, drained and packed; but that, tempered with discretion, it was better to

wait than to operate, unless the patient was losing ground

French surgeons, however, were almost unanimous, even at this time, that the methods of caring for the wounded, so definitely stated at the outbreak of the war, must be radically altered. Thus, Quenu[10], in an address before the Societe de Chirurgie de Paris, October 21, 1914, stated that free opening of the wound and scrupulous disinfection of the cavities with removal of foreign bodies and loosened bone fragments, were essential in the treatment of gaseous gangrene. He further advocated that where gangrene extended into the depths of muscular masses, hot air raised to 500 or 600 degrees centigrade, should be brought into contact with the gangrenous parts, by blowing the superheated air through a tube, thus drying and mummifying the gangrenous surface.

That gaseous gangrene was now becoming the great problem in the treatment of war wounds was shown by the writings of many surgeons, and by the many and varied methods recommended to combat this infection.

Vincent[11], recommended the dusting of fresh chlorinated lime, mixed with ten parts of pulverized boric acid, over the surface of gangrenous wounds. Hoguet[12] stated that, contrary to previous experience, all wounds, both rifle and shrapnel, were liable tto become infected. This was attributed to the soiled condition of the soldiers' clothing, and the inability of the soldier to keep clean. He further mentioned the frequency of gas gangrene as a complication, particularly in wounds caused by shrapnel.

That English surgeons were quick to follow the lead of the French, was shown by the "London Letter" of the *Journal of the American Medical Association,* written November 27, 1914, and published December 19, 1914 Here it was stated that the uniformly septic conditions of the wounds as they came under treatment in the hospitals, had proven the failure of the modern aseptic treatment and thus had caused a proposal to revert to the old antiseptic methods. Further, that the importance of immediate disinfection of wounds was recognized, and that thus following the example of the French, a small quantity of iodine was being supplied to each man, which was to be used as soon as the wound was inflicted. How logical and sound were the reasons for a change in the method of treatment, and yet how futile and ridiculous the method advocated!

Cheyne[13], a British surgeon, stated that practically all wounds in the last war became septic because there was often a long, unavoidable delay in collecting the wounded, as well as because of the fact that many of the wounds were of large size, and so complicated that thorough disinfection was almost impossible. He stated his preference towards phenol as a disinfectant, rather than iodine.

Bowlby and Rowland[14], in discussing gas gangrene, recommended that tight bandages should be avoided. They also recommended that all blankets and clothing soaked with the discharge from cases infected with the gas bacillus, should be destroyed, since the group of anaerobic bacteria causing gangrene were always spore bearing organisms. They further recommended the boiling of all instruments used in such cases, for at least one hour, in a solution of lysol, one part of lysol to twenty parts of water.

It can thus be seen that the fear of gas gangrene was uppermost in the minds of those attending the wounded in both French and British Armies, within five months after the opening of hostilities, and a superficial review of some of the methods advocated to combat this complication is of extreme interest.

Thus, Pauchet and Sourdat[15] urged the use of gauze impregnated with paraformaldehyde as a dressing with sufficient germicidal powers to combat infection

Hartman advocated at this time the liberal opening of wounds, to prevent gas gangrene, and urged immediate amputation in cases in which a limb was infected, as was shown by swelling throughout its thickness. He also recommended the opening up of the course of the projectile, and the removal of all foreign bodies, followed by the establishment of drainage from end to end of the wound, and its subsequent irrigation with hydrogen peroxide.

Cazin[16], at the same time, stated that in a group of 158 wounded men surgically treated at the hospital, less than 48 hours after receiving their wounds, all were cured, while among the wounded received in hospitals after four or five days of transportation in sanitary trains, the mortality was as high as 10 to 20 per cent, as a result of such complications as gas gangrene and tetanus. Here, then, was a definite statement as to the importance of the time element before the proper surgical treatment was instituted.

That German surgeons[17] were encountering the same difficulties as were being met with by surgeons of the Allied armies, was shown by the "Berlin Letter" of December 8, 1914, published in the *Journal of the American Medical Association,* January 16, 1915. It was here stated that while the results of the treatment of the wounded in general were particularly favorable, yet tetanus and gas phlegmons had been observed as wound infections, with apparently greater frequency than formerly.

That the time had not yet arrived for a radical departure from previous beliefs, was shown by the instructions prepared by Chavasse[18] for

the physicians serving with the French army. Chevasse, as chief of the army medical department, stated that every wound and its vicinity should be painted with a 1 per cent solution of iodine. He next stated that because a dressing smelled bad was no reason for changing it, since it could be deodorized by means of a weak solution of chlorinated soda. He recognized the prevalence of infection by stating that wounds of war should never be sutured, but that the edges of large wounds might be approximated by the use of straps of adhesive plaster or clips. He advocated the cleansing of jagged wounds and the removal of foreign substances, after which they should be coated with hydrogen dioxide and then painted throughout with the tincture of iodine. He further stated that the blowing of pure oxygen into a wound was of importance in the prevention of gas gangrene.

The above being in substance a portion of a manual of instructions to the French army surgeons, was a partial acknowledgment that the methods of wound treatment advocated at the beginning of the World War were not proving out.

The first description of what later became standard as the correct surgical cleansing of war wounds, was published by an Englishman. In a careful search through the literature, Wildey[19], as early as December 19, 1914, was the first to state that a "thorough skin toilet," which he described as "the paring of every particle of soiled and badly damaged tissue which was followed by the swilling of the wound with a 2 per cent solution of iodine in alcohol, and afterwards with saline, after which the wound was closed by piling up the skin edges with mattress sutures, to insure complete coaptation and the avoidance of artificial drainage."

Thus, Wildey was the first to recommend the above as the proper treatment of war wounds. The only important thing lacking in his description is the time interval between the receiving of the wound, and the giving of surgical aid. Since the latter is the matter of chief importance in the treatment which the French termed "debridement," we cannot give Wildey credit as being its first advocate, but must conclude that the ultimate result was the combined work of many investigators.

That the most important factor in the consideration of war wounds was the infecting organism, was mentioned in an editorial in the *Journal of the American Medical Association* of January 30, 1915, entitled "Bacteriology of War Wounds." That this is the most important factor, is well recognized. Thus, we may have infections with staphylococci, streptococci or the more serious gas-producing group. However, it is always well to bear in mind another factor, of almost equal importance, is the capability of the person in whom the infection has been introduced of forming antibodies to combat the growth of the organism causing the infection. Thus, in one individual a gas bacillus is of serious moment, while in another the introduction of the same organisms would produce a much less serious condition because of the ability of the second individual to more rapidly produce immune bodies to destroy the infecting organism. Thus the introduction of a microorganism into a wound, is, in and of itself, not always followed by disastrous results.

First, we must consider the variety of organisms; second, the immunity possessed by the individual into whom it has been introduced; third, the number introduced; and fourth, the amount of dead tissue present in the immediate neighborhood of the tract of the wound. The last is of especial importance, when the infecting organisms of the anaerobic variety, as will be well shown by subsequent events.

That the German surgeons were having infections caused by anaerobic bacteria at this time, was shown in an article by Busch[20], in which he describes the cure of a case of gas phlegmon by means of its complete extirpation surgically. He advocated always cutting into sound tissue and estimated the area involved by the difference in sound made by scraping a razor over the region.

About the same time, Heiser[21] published an article in which he recommended the playing of a jet of air on any wound that appeared liable to develope tetanus.

Hartman[22], in an article published in the Review Scientific, made mention of the fact that experience had shown that the early teachings as to the care of wounds had proven entirely fallacious. He stated that wounds caused by shell fragments were the most numerous, and that such were almost invariably infected, as well as that, in contradistinction to the views of others, wounds caused by bullets were also apt to be severe in character and were frequently infected.

He advocated the free opening of all infected wounds and the removal of foreign bodies and loose fragments of bone.

Lawson and Whitehouse[23], surgeons of the British army, advocated the injection of neutral hydrogen peroxide above the infected area in cases of emphysematous gangrene. The injections were made into the subcutaneous tissue, and, in the case of an extremity, a complete belt was made around the same They also advised that the injections be made into the gangrenous area combined with thorough opening and cleansing of the wound, which in-

cluded the removal of dead tissue and foreign material.

At about the same time, Tuffier[24] called attention to the prevalence of infection and the necessity of drainage of infected wounds at their most dependent angle.

Many and varied were the methods suggested to combat the ravages of wound infection which was almost universally present at this stage of the war. In addition to those mentioned already, a brief allusion to others recommended will be of at least historical importance.

Thus, Menciere[25] published an article in February, 1915, in which he advocated a process that he termed the embalmment of septic wounds. This consisted in washing the wound during a period extending over three or four days with three different antiseptic solutions: First, mercuric chloride, 1 to 1000; next, phenol, 1 to 40; and lastly, hydrogen peroxide, 1 to 3. After this, gauze soaked in a solution composed of iodiform 10 grams, guaiscol 10 grams, eucalyptol 10 grams, balsam of Peru 30 grams, and ether 10 grams was packed into the opened wound. Evidently the author believed in the efficacy of antiseptics and desired to make use of as many as possible.

In January, 1915, Quenu[26] stated that the complete opening of a wound was the main factor in preventing and treating gas gangrene. He also recommended the burning of the tissue around the wound with air, heated to 700 to 800 degrees centigrade, as a method of treatment. This, indeed, was a method that might be termed cautery debridement, except for the fact that it was not instituted until after infection was well established.

On the German side, Peterman and Hanchen[27], during January, 1915, issued a report of their experience with over twelve hundred wounded. This experience, they stated, had changed their viewpoint from conservatism to more radical operative treatment.

In March, 1915, Marquis[28] reported his results in 65 severe injuries of the extremities. These injuries were all so severe that amputation had to be considered. The treatment adopted, however, consisted in debridement, disinfection, drainage, and the removal of foreign bodies and sequestra . Amongst the 65 cases eight died from complicating lesions, and five from their wounds, without amputation. Two died from tetanus. While no definite conclusions were drawn, it would seem that his results proved that amputation could be prevented by proper and early wound cleansing.

In April, 1916, Mills[29] reported that 63 per cent of bullet wounds were infected, and 85 per cent of the wounds caused by shrapnel, amongst the wounded soldiers on the Russian front. He further stated that the practice in Budinger's clinic at Vienna was to amputate where an extremity was involved, in cases of tetanus, gas bacillus infection, or torsion necrosis of a fractured leg, as well as for septic knee joints. Thus, we can see that where serious infection had once developed, the practice in one Austrian clinic at least had become decidedly radical.

In March, 1915, Proust[30], in summing up his experiences of six months of war surgery, was insistent upon the necessity of widely opening wounds within a few hours after injury, with subsequent drying and draining to prevent gas gangrene.

In April, 1915, Morestin[31] advised the use of a solution of formaldehyde mixed in equal parts with alcohol and glycerine as an application for the treatment of septic wounds and gaseous gangrene.

At the same time, Dionis du Lejour[31] gave great praise to Wright's treatment with hypertonic saline solution. He also reported making use of a solution of liquid glucose which contained sufficient carbolic acid to make a strength of 1 to 80. He advised the removal of foreign bodies wherever possible, as well as the excision of necrotic and contused tissues, together with wide wound opening, so as to obtain adequate drainage, after which the carbolized glucose solution was applied

That the British were at this time becoming advocates of early operation in certain classes of injury at least, was shown by the "London Letter" of July 2, 1915, published in the *Journal of the American Medical Association,* dated July 17, 1915. Here it was stated that they had established nine operating theatres in connection with their casualty clearing stations, which were situated at distances of from five to seven miles behind the front. Special attention was given to wounds of the head and abdomen at these stations .

That some German surgeons were also becoming advocates of early operation, was shown by an article written by Axhausen[33] in May, 1915, in which he stated that where wounds showed much destruction of tissue, the excision of dead and dying tissue was indicated. He suggested the removal of tissue until a good bleeding surface was obtained throughout the wound, after which it was drained and the limb immobilized. He stated that no case so treated had in his experience developed tetanus, gas gangrene, or progressive pyogenic infection.

Amongst German surgeons at this time, Ranze[34] deplored the primary suture of any war wound, while Schmidt[35] reported 28 cases of gas gangrene and from these concluded that immediate amputation was the proper method

of procedure where gas gangrene of an extremity was present.

In July, 1915, Dremau[36] advocated the use of a 5 per cent solution of benzoate of soda for the irrigation of wounds, as well as its application as a wet dressing, together with the establishment of free drainage by means of multiple incisions, and the use of large, soft-rubber tubes.

From the British came a very excellent description of wound excision, in June, 1915, when Mullinan[37] stated that devitalized tissues should be extirpated He advised cutting out the wound of the skin with a sharp scalpel, and then trimming away damaged tissue, so that a clean incised wound replaced the infected and lacerated wound made by the projectile. The tissue excision applied to fascia and muscle as well as to skin, and he further stated that all foreign substances should be removed.

Osler[38], in a comprehensive review of wounds and disease in war about this time, stated that of 153,980 wounded, 60 per cent had returned to duty. He further stated that more suppurating wounds had been seen by British surgeons during the first 10 months of the war than had occurred in the 40 years since Lister's teachings had become general. He stated that the character of shell and shrapnel wounds favored infection, since germs were carried far into the tissues and suppuration was inevitable. He made mention of the fact that, in trench warfare, the uniforms of the men were caked with mud, which, in highly cultivated districts, invariably contained dangerous microorganisms, so that even the slightest wound resulted in infection.

W. Munch, a German surgeon, in June, 1915, published an article in which he advocated bathing wounds in a warm aqueous solution of chlorinated lime, for a period of 20 minutes each day.

In the "Paris Letter" of August 15, 1915, Gray called attention to the beneficial results observed by some of the English surgeons when a Ringer-Locke solution was used as a moist dressing. Other surgeons advocated sea-water, and Wallish advised a dressing of moist normal saline

The "London Letter" of August 13, 1915, to the *Journal of the American Medical Association* dated September 4, 1915, spoke of a controversy between Sir Watson Cheyne and Sir Almoth Wright, in which the former advised the use of strong antiseptics for the disinfection of wounds, while the latter urged that a 5 per cent solution of common salt combined with a five-tenths per cent solution of sodium citrate was the best possible dressing, inasmuch as it caused an outflow of lymph, and rendered the discharge incoagulable.

About this time Landousy presented before the Academy of Sciences in Paris, a report of the work of Alexis Carrel and H. Dakin, in which a solution of chlorinated lime, to which boric acid and calcium carbonate had been added, was used in the treatment of infected wounds.

A claim of priority for this method of treatment was brought forward for Lorrain Smith, of the University of Edinburg, stating that he had recommended the use of a similar solution some five months previously. However that may be, the work was probably an independent research by both, since the antiseptic value of chlorinated lime had long been recommended and used in different forms, but the particular method recommended by Carrel and Dakin, after slight modifications ,came intto extensive use, and was subsequently known as the Carrel-Dakin method of treatment.

Fackenheim[40], serving with the German army, advised the application of sugar to extensive suppurating wounds, and stated that infected wounds so treated cleared up with great rapidity; while Hahn[40], also a German surgeon, advised the packing of wounds with gauze which had been dipped in a solution composed of one part alcohol and two parts hydrogen peroxide, the dressing being kept moistened with the same solution.

In August, 1915, Gray[41], of the British army, stated that healing by first intention was assured in the vast majority of properly selected cases where excision of the wound was performed. He also declared that the earlier the excision was performed the better the results would be, and thus was one of the early English consultants to advocate excision of wounds.

At the same time, a paper was published by Dakin[42], giving the method of the preparation of the solution which subsequently became so well known because of the more or less general adoption of the Carrel-Dakin method of treating infected wounds

Originally the solution was prepared by the decomposition of chlorid of lime with a solution of sodium carbonate. The filtered solution containing sodium hypochlorate, together with a slight excess of alkali, was next mixed with boric acid in sufficient quantity so that the resulting solution was acid when tested with phenolphthalein suspended in water, but still alkaline to litmus. He claimed that the resultant solution contained a balanced mixture of hypochlorite and polyborates of sodium, with small amounts of free hypochlorous and boric acids.

The method recommended was that 140 grams of dry sodium carbonate, or 400 grams of crystalized salt, should be dissolved in 10 liters of water. To this, 200 grams of the chloride of lime were added. This mixture was

well shaken, and allowed to stand one-half hour. The clear fluid was then siphoned off and filtered through cotton. To the filtrate, 40 grams of boric acid were added. The solution was declared efficacious for one week, at the end of which time, because of lack of stability, a fresh solution would be needed.

Menciere[43] advcated what he termed the 'embalmment' of wounds. This consisted of the making of long incisions, cleansing of the gangrenous area, and the removal of bone splinters, fragments of clothing and shell. He next blocked all counter openings, after which the wound was filled with a solution composed of nine parts of pure phenol and one part of alcohol. This was left in situ from one to one and one-half minutes, after which the excess was removed with tampons, and the wound irrigated with three to four liters of strong alcohol. Afterwards, the embalming process was carried out by the introduction of from 150 to 200 grams of a solution composed of one liter of ether, 10 grams each of lodoform, guaiacol, and eucalyptol, 30 grams of balsam of Peru, and 100 cubic centimeters of 90 per cent alcohol.

In September, 1915, Tuffier[44] stated that wound infection could be stopped at the beginning, but that if allowed a few hours in which to develop, it soon got beyond control. He advocated the early application of the Carrel-Dakin technic

In October, 1916, Carrel and Dakin[45] published an article upon the use of sodium hypochlorite in the treatment of wounds, in which they stated that by their method infected wounds could be completely sterilized, after which they could be closed up like an aseptic wound.

Pinard[46] at this time urged the application of Delbet's method, which consisted in irrigating infected wounds with a 12.1 per thousand solution of anhydrous magnesium chloride. He was of the opinion that this procedure tended to clear up the infection with more rapidity than other methods did.

In January, 1918, Gray[47] stated that the inefficiency of antiseptics as a preventative means of disinfecting wounds, had been well demonstrated. He insisted upon the necessity of the cleansing of the wound by operation, after which it should be packed with gauze which had been soaked in a 5 to 10 per cent salt solution, while in the folds of the gauze he placed numerous tablets of salt.

In the same month, Carrel, Dehelly and Dumas[48] again wrote of the Carrel-Dakin method of sterilizing wounds with subsequent surgical closure, after bacteriological examination showed a marked diminution in the number of bacteria in smears taken from the wound.

Moyinhan[49], in March, 1915, stated that whenever possible, the excision of the wound was the ideal method. This being impossible in the majority of cases, he advocated proper cleansing of the skin by means of soap, ether or benzine, and the subsequent application of some antiseptic such as Dakin's solution, Harrington's solution or MacDonald's solution.

The "Paris Letter" of March 30, 1916, published in the *Journal of the American Medical Association* dated April 29, 1916, quoted a paper read by R. Pique, in which he reviewed the early practice of temporizing with wounds. He made mention of the disastrous results following this practice, and called attention to the fact that it had become essential to place ambulances near the front, where all facilities for proper operative treatment for the wounded were now available. Such hospitals were now equipped with radiographic apparatus and electric lights. He further stated that the necessity for immediate operation was due to the serious character of the wounds, and the possibility of subsequent infection.

Perret[50] about this time stated that the success of Carrel's method of treatment depended upon the length of time between the receiving of the wound and the application of the treatment. He further stated that not more than six hours should elapse, and that all wounds should be surgically cleansed before beginning the use of Dakin's solution.

This, indeed, was a demand for the early debridement of wounds, although it appeared simply to be a plea for the early application of the Carrel-Dakin method.

In April, 1915, Fiessinger, Cuillamuin, Moisend and Vieime[51] published a research in which eight of the antiseptics advocated for infected wounds had been utilized. This included Dakin's solution. They stated that the alkaline hypochlorite solutions had a dissolving action whereby the pus clots and red cells were promptly liquified, and that living tissue projected itself against this dissolving action because of its salt content. No definite conclusions as to the relative value of the various substance tested were drawn.

In May, 1916, Dehelly[52] reported 48 cases in which 155 wounds were noted in which early closure of the wounds was attempted after they had been treated by the Carrel-Dakin method. He stated that this procedure had shortened the time of healing by approximately two-thirds the normal time, and that the application of this treatment had provided a more supple wound than would have been the case if secondary suture by the Carrel-Dakin method had not been attempted.

May 4, 1916, Dehelly and Dumas[53] described the Carrel-Dakin technic in which multiple perforated, small rubber tubes were employed, the tubes being about 25 centimeters long and ligated at the lower end. These were connected with a glass flask which held about one liter of Dakin's solution. Gauze was next sewed around the perforated end of the tubes, and such a number as was required to keep the entire wound surface bathed with the Dakin's solution were placed within the wound. Depending upon the size of the wound, from five to twenty drops per minute of the solution were permitted to enter the tubes. The skin around the wound was protected with vaseline, so as to prevent burning by the solution, and daily bacteriological examination and counts were made of the discharge. When the bacteria had disappeared, the wound edges were coaptated by means of long strips of adhesive plaster.

In February, 1915, Fiolle[54] urged the building of bomb-proof operating rooms, connected with the trenches, so that immediate surgery would be furnished the wounded, thus proving that amongst the French surgeons, the belief that the success or failure of debridement as a means of preventing infection depended chiefly upon the time element.

In June, 1916, Anderson, Chambers and Lacey[55] stated that their experience had forced them to conclude that the bacteriacidal action of many so-called antiseptics was negligible, and that the majority of wounds healed under proper dressing and drainage without the use of any antiseptics. They then stated that they used a saturated solution of salicylate acid in alcohol, two or three drams of which were added to a pint of saline and the wound flushed with the same.

Barbarin[56] wrote at this time upon the necessity of draining wounds at the lowest point. He advocated the placing of a loose gauze bag filled with agar within the wound, a drainage tube having previously been inserted to the lowest point The agar was next wet with Dakin's solution or some other disinfectant, thus causing it to swell and distend the wound, thereby, as he stated, bringing the solution to all parts.

In August, 1916, Leroy[57] described the treatment of war wounds by what he called Lemaitre's method. This consisted in the thorough exploration of the tract of the projectile, removal of all foreign bodies, and excision of contused and lacerated tissues, after which the surface of the wound was painted with a solution of tincture of iodine. This was followed by primary suture in selected cases which could be observed; otherwise, the wound was left open to be sutured secondarily, some days later. He stated that the earlier treatment was instituted, the better the results obtained, and that the appearance of pus or fever was a proof of defective operative technic.

In July, 1916, Lemaitre[58] gave an account of the various beliefs held by him at different stages since the beginning of the war. At first he was in the habit of resting on the expective and intervening only after the phenomena of infection had become manifest. During this stage, the results were bad.

During the second phase, having come to the conclusion that all war wounds should be treated as already infected, he practiced early operation, making wide and free openings. His results were better, he stated, but suppuration invariably appeared after a few days or weeks, which was followed by considerable loss of tissue from sloughing

In the third place, in order to avoid the sloughing and suppuration, he resected all the necrosed parts and systematically explored the wound for projectiles. He used the blackening along the track of the bullet as a guide. This new procedure was again marked by improvement, but the wound tended to remain of a grayish color, and there was usually considerable discharge for at least a week.

In the fourth phase, he acted upon the supposition that during the course of his exploration of the wound, he was innoculating one part from another by means of his instruments. For this reason he completely dried the wound after surgical cleansing, and then treated it with the tincture of iodine, so as to destroy the germs implanted upon the surface. The results after this additional step were very much better, there being no suppuration or fever, and the wounds granulated rapidly and possessed a healthy appearance. He stated that according to his expecience, Carrel's method gave inferior results to that which he described. Next, he practiced what he termed early incomplete suture, accompanied by drainage from the most dependent part.

Rocher[58] at the same time writes of the necessity of the removal of foreign bodies as well as of all necrosed tissues. He advocated secondary suture rather than primary.

In August, 1916, Roberts and Statham[59], British surgeons, advocated free excision of the wound, together with all lacerated and infected tissue, after which the wound was packed with gauze filled with tablets of sodium chloride. They stated that frequently secondary suture could be performed within ten days after this treatment was instituted.

The "Paris Letter" of September 7, 1916, published in the *Journal of the American Medical Association* of October 7, 1916, made mention of the work of Depage of the Belgian

army. He and his associates believed that secondary suture of infected war wounds should be governed by the bacteriological count. He divided wound infection into three periods: First, the period of acute infection, during which microbes are numerous in a direct smear taken from the exudate; second, a period of what he termed "attenuated infection," during which the bacterial count is less; and third, an aseptic period, at which time secondary suture can be performed. He stated that two or three favorable examinations should be obtained before suture should be attempted.

At the same time, Delbert[60] stated that he had attempted to ascertain the value of Dakin's solution when applied to fresh wounds. His conclusion was that this was a very unsatisfactory method of procedure, and that simple mechanical cleansing of the wound by excision of the orifices and as large an amount of the entire tract as was possible, followed by immediate reunion, usually resulted in healing by first intention, without the aid of any antiseptic.

Schwartz[61], with the French, at this time also wrote of the necessity for the proper surgical cleansing of wounds at the first possible moment. He believed in providing for ample drainage, however.

Gaudier and Montaz[62] recommended immediate suture of wounds after proper removal of all damaged tissue, provided the patient reached the surgeon early and could be kept under observation for the first few days. They urged extensive excision when such could be done within 24 hours after injury, and further stated that the best results were obtained when operation was performed within six hours.

Desjardines[63], in January, 1915, stated that Gray (British) favored the complete excision and immediate suture of wounds at that time. He also reported that he had grouped patients in series of ten and treated those in each series with a different antiseptic solution, such as Dakin's, Wright's hypertonic saline, iodine solutions of different strengths, acetic acid solutions and a solution of sodium bicarbonate. While undergoing such treatment, all wounds were cultured bi-weekly. He reported no difference in the power of the various antiseptics used to shorten the length of time of the infection.

About the same time, Lyle[64] wrote that the future course of a wound was dependent upon the thoroughness of the first surgical act. He insisted upon a thorough mechanical disinfection of the wound, which included the extraction of all shell fragments, particles of dirt, clothing, etc, before instituting the Carrel-Dakin method.

Amongst experimental reports regarding wound infection, the work of Taylor[65] should be mentioned. He conducted experiments with the idea of determining the relative importance of dead tissue and foreign body in the severity of infection in wounds. His conclusions, after planting wounds with sterile foreign bodies, and others contaminated with various aerobic and anaerobic baceria, and still others so contaminated, together with small pieces of dead muscle tissue, were that, where dead muscle tissue was present, the resulting infection was invariably more acute. From his work he decided that great care should be exercised in the removal of dead tissues, as well as of foreign bodies.

That some surgeons were still placing confidence in the value of antiseptics, however, was shown by numerous writings. Thus, Feldman and Walton[66] recommended the opening of wounds, the removal of foreign bodies, and their subsequent filling with a solution prepared by rubbing together equal parts by weight of camphor and pure phenol.

Browning, Kennaway, Thornton and Bulbransen[67] at this time reported their experience with the use of the dyes flavine and brilliant green in the treatment of infected wounds. They suggested that such wounds be irrigated with a one to one-thousandth solution of flavine in normal salt solution. They believed that the bacteriacidal powers of this preparation were better than those of any of the other antiseptics recommended and that it was also less injurious to human tissues.

From the German side Hirschberg[68] about this time published a report upon his experiences with the use of Dakin's solution. He was much in favor of the Carrel-Dakin method.

Cheynon[69] of the French army wrote in February, 1917, of the value of spraying the entire surface of the wound, after proper surgical debridement, with a solution composed of 10 grams each of iodiform, guaiacol, eucalyptol and Peruvian balsam, to which was added 100 grams of alcohol, and sufficient ether to make 1,000 grams.

With regard to the time of operation after injury, Lalosque[70] stated that it was best to allow the severely wounded to rest before operation, and during this interval he treated the wound with Menciere's balsam, the patient receiving hypodermoclysis of normal saline, and stimulants as indicated. He stated that after five or ten hours, their condition might improve sufficiently so that operation could be more safely undertaken.

Concerning the differentiation between shock and hemorrhage in the seriously wounded, Gouvaerts[71] stated that after a serious wound both the red and white cell counts were high. If, within six hours after the wound had been received, the red count had dropped to four

million or lower, while the white count had increased to thirty thousand or more, it was an indication of serious hemorrhage, and demanded immediate attention as well as the transfusion of blood.

In April, 1917, Pisano[72] reported 3,171 wounded who had received the earliest possible surgical treatment. This included 172 very severely wounded, and the mortality recorded was less than 3 per cent.

Tavermier[73], early in 1917, wrote of his experience with what he termed early secondary suture in war wounds. He advocated the surgical cleansing of all wounds, which included the cutting away of all bruised tissue and the removal of all loose splinters of bone, together with the making of a drainage opening at the lowest point. After one day, if the wound appeared healthy, and the patient's condition did not indicate the onset of infection, the wound was sutured. He reported 79 cases in which only one severe infection developed following this procedure.

Chalier[74] stated at this time that he had discontinued the use of antiseptics in war wounds. He believed in operating before infection had had time to develop, the wound being cleansed surgically, and immediately sutured in layers. He stated, however, that the patient must be under constant observation so that the wound could be opened in case infection developed.

Policard and Desplas[75] emphasized the fact that early surgical treatment was of primary importance in the proper care of war wounds, while Bonnet[76] stated that whenever it was possible to operate within the first few hours after injury, healing by first intention usually resulted. He referred in his report to seven cases so treated, which were complicated by fracture of bone.

Marquis[77] also stated that surgical intervention should be applied at the earliest possible moment, but that primary suture should not be performed unless the patient could be kept under surveillance. He recommended secondary suture between the sixth and fifteenth days.

In July, 1917, Dakin, Lee, Sweet, Hendrix and LeConte[78] published a report upon the use of dichloramine T in the treatment of infected wounds. Dichloramine T (toluene-parasulphondichlororbmin) was prepared by shaking 350 grams of chlorinated lime with two liters of water for one-half hour. The mixture was then allowed to settle. The supernatant fluid was next siphoned off, and the remainder filtered. Seventy-five grams of powdered toluene-parasulphonamid were then added to the hypochlorite solution and shaken until dissolved. This was next filtered and the filtrate acidified by means of the gradual addition of 100 cubic centimeters of acetic acid. One hundred cubic centimeters of chloroform was then added to extract the dichloramin, and the whole well shaken. The chloroform layer was next separated, dried over calcium chloride, filtered and allowed to evaporate in the air. The residue was powdered and dried in vacuo. The authors expressed the hope that this product used as a paste or in an oil vehicle would prove less irritating to the skin was the original Dakin's solution, as well as of higher bacteriacidal power.

Bowlby and Wallace[79], in a general discussion of the care of the wounded, declared for early routine excision of damaged tissues, and the application of moist antiseptic dressings.

McNee and Dunn[80] believed that the rapid spread of gas gangrene was due to the peculiar anatomic structure of muscle tissue. They stated that the sheaths enclosing the long fibres were so easily detached, that spaces were formed into which toxic substances passed with ease. They further called attention to the selective invasion of single muscles in the early stages of this variety of infection.

Frankau, Drummond and Neligen[81] stated that injured muscle was always the initial focus. They advised explorations of such wounds, with a view of attempting to arrest the infection while still within the muscle. They stated that it might be necessary to resect only a portion of a single muscle or the same in its entirety. Again, portions of several muscles or several entire muscles might have to be sacrificed. Their guides as to the amount of muscle tissue that must be removed were the color of the muscle, its contractility when cut, and the presence of bleeding from the cut surface.

Sherman[82], in July, 1917, wrote extolling the Carrel-Dakin method of treating infected wounds above all others, while at about the same time, Carrel and Hartman[83] stated that chloramin T paste kept a sterile wound sterile and also sterilized an infected wound.

Chalier[84] at this time recommended complete debridement during the pre-infectious stage, followed with primary suture. He stated however, that wounds in which there was extensive tissue crushing so that recuperation was impossible, were not adaptable to this form of treatment.

Webb[85], working with the British, recommended a wet dressing of a 1 to 1000 solution of brilliant green in normal saline as a treatment for infected wounds, while Browning, Gulbransen and Thornton[86] reported upon the comparative value of acriflavine, proflavine and brilliant green as antiseptics. They concluded that the flavine preparations were of most serv-

ice as preventatives of infection when applied soon after the wound was made.

In September, 1917, Sweet[87] stated that in his experience a solution of dichloramin T in eucalyptol and paraffin oil was as satisfactory as any other means of wound disinfection.

Speed[88] in October, 1917, stated that the policy of operating as early as possible in at least 90 per cent of casualties had come to stay. He wrote also of the use of what had then become known as B.I.P.P. amongst British surgeons . B.I.P.P. was a paste composed of bismuth one part, iodoform two parts, and petrolatum one part He stated that from his experience he believed that it possessed a distinct value. His most important statement, however, was that muscle group excisions were indicated whenever gas bacillus infection asserted itself.

During the month of October, 1917, an article was published by Phillips[89] of the British Medical Service in which he gave his ideas concerning the secondary closure of infected wounds. He stated that primarily such wounds should be freely laid open and cleansed, after which the Carrel-Dakin method of treatment should be employed. During this procedure bacteriological examinations of the discharge were made every three or four days. He insisted upon two successive reports of an average of less than three bacteria per field before closure could be attempted. After this result had been obtained he stated that the wound edges should be trimmed and granulations curetted, the wound then being swabbed with alcohol, after which bismuth, iodoform, petrolatum paste was rubbed into the surface. Next closure was accomplished by suturing tightly so that no dead cavity was left. He stated that his results had been most satisfactory whenever this procedure had been adopted.

Bevan in a letter published in the *Journal of the American Medical Association*, November 17, 1917, discussed the value of the Carrel-Dakin treatment of wounds. He stated that the belief that any antiseptic possessed any healing property, or was miracle working in the treatment of wounds was inconceivable, and he stated further it was his belief that the choice of any one of a half dozen thoroughly tried antiseptics would not make any enormous difference in the sum total of the end results.

In October, 1917, Hey[90] advocated the staining of the tract of the wound with a 0.5 per cent water solution of brilliant green as an aid to more complete debridement. This having been accomplished he suggested that a paste composed of boric acid 11 ounces, French chalk 1 ounce, liquid petrolatum 8 fluid ounces and brilliant green (1-500) 17½ grains should be smeared over the wound surface. He stated, however, that complete excision of the wound was the essential and that without this the use of any antiseptic was practically worthless.

Duval[92] in an address delivered before the Societe de Chirugie de Paris, in November, 1917, presented a very accurate estimation of the methods then in vogue for the treatment of wounds of the soft parts. He stated that whenever possible all wounds should be treated within a period of twelve hours after infliction. He stated that all wounds should be widely opened and all foreign bodies removed. Surgical cleansing having been completed, the wound could be sutured immediately, or secondary suture could be performed after progressive sterilization. Immediate suture was stated as his method of choice, but this could only be attempted under certain conditions. These latter included experienced surgeons, perfect equipment and the possibility of a hospital residence for the patient of at least fifteen days under the care of the operating surgeon. Whenever such conditions could not be maintained, secondary suture was advocated.

The results obtained in certain designated hospitals where primary suture had been performed and other hospitals where secondary or deferred primary suture were the methods used, were of extreme interest, primary suture resulting successfully in all but four per cent, and not a single grave accident being noted.

Amongst those cases treated by deferred primary suture, which was described as surgical debridement and lavage with ether followed later by closure, no untoward results were noted. There were no deaths, no case developed gas gangrene or tetanus. He concluded that retarded primary suture yielded equally as good results as primary suture, and that the systematic sterilization of wounds was useless in at least two-thirds of the cases. As a consequence, he gave as his opinion that secondary suture should give way to deferred primary suture.

Short, Arkle and King[93] in October, 1917, stated that the use of Hey's paste, composed of brilliant green, boric acid, French chalk and liquid petrolatum would, in the majority of cases, sterilize a wound within three days.

Morrison[94] advocated the opening of wounds, their cleansing and the removal of all foreign bodies, after which the cavity was mopped with methylated spirit and dried. He next filled the wound with B.I.P.P. and applied a sterile dressing.

At the same time Gray[95] suggested the use of liquid petrolatum combined with boric acid, iodoform or some of the germicidal dyes such as flavine or brilliant green after proper surgical wound cleansing had been performed.

A report of a special committee appointed

by the Director-General of the British Army Medical Services to investigate the merits of the Carrel-Dakin method of wound treatment was published in the Journal of the American Medical Association, December 1, 1917. This committee decided that the method of application was of value, but that other antiseptic solutions could be employed as well. They further stated that this method of treatment appeared to diminish the dangers incidental to sepsis including secondary hemorrhage, that it hastened the convalescence of the patient, that it lessened the liability to stiff joints and scar deformities, and that when secondary operations became necessary such operations were more likely to be free from septic complications than was the case when some other system of primary treatment had been adopted.

Drummond and McNee[97] in October, 1917, urged the use of flavine in a dilution of 1 to 1,000 of normal saline. They insisted upon the necessity of excision of infected and damaged tissue before the flavine solution was applied and further stated that infected wounds were not rendered bacteriologically sterile even after the prolonged use of flavine.

In January, 1918, Taylor[98] stated that the hope of a general antiseptic for infected wounds seemed far removed. He advocated the use of a specific antiseptic for specific infections.

Moynihan[99] in December, 1917, stated that the excision of all contaminated, infected or dead tissue, together with the removal of all fragments of clothing and of all projectiles, was of supreme importance in the treatment of gun shot wounds . He believed that when this was done immediate closure could be performed in eighty to ninety per cent of early cases.

Concerning the use of antiseptics, he stated that sufficient reliance did not appear to be placed on the power of the natural defenses of the tissues for controlling infection.

Gould[101] in November, 1917, lauded the use of Morrison's bismuth, iodoform, petrolatum paste in the treatment of wounds, but insisted upon the thorough surgical cleansing of the wound before the paste was applied and primary suture performed.

Bosley[103] in January, 1918, wrote that wounds with small entrance and exit might be treated with a dry dressing and subsequently not disturbed, while large wounds required an early and thorough excision of all ragged and detached bits of tissue. He stated also that the most important fact was the excision of all tissue with a deficient nutrition, or such tissue as might have been contaminated. He decried the use of B.I.P.P., stating that nephritis was not an uncommon complication wherever this preparation had been used.

Neff and O'Malley[104] stated in January, 1918, that the belief that sterilization of a septic wound by means of any solution was absurd, since only the pathogenic germs upon the surface of the wound were affected, while such solutions were powerless to affect pathogenic bacteria beneath the wound surface where the active micro-organisms in the production of the infection were located.

The "Paris Letter" of December 27, 1917, published in the *Journal of the American Medical Association* dated February 2, 1918, quoted Potherat's report upon primary and secondary suture of war wounds. He reported two complete failures and eleven partial failures amongst 221 primarily sutured wounds. He stated that the failures were the result of an insufficient excision, while the partial failures were caused by insufficient hemostasis, whenever secondary suture was employed. He also stated that he preferred a wet dressing composed of 12.5 per cent solution of magnesium chloride to which 0.125 gm. of ammonium chloride had been added, to the use of Dakin's solution.

Bashford, Hartley and Morrison[106] in December, 1917, published a report of their findings after treating fifty infected wounds with either acriflavine or proflavine. They were convinced that the use of either of these dyes was of no value.

Lee and Furness[107] in January, 1918, stated that they had obtained just as good results in the treatment of wounds with dichloramin T as they had previously obtained by means of the Carrel-Dakin method. They believed that dichloramin T had a decided advantage since skin irritation was absent when small dressings were employed. However, they stated that surgical cleansing of the wound was the essential of proper treatment of war wounds since chemical germicides would react only on the bacteria with which they came in contact.

During a meeting held in Paris February 5, 1918, DePage[111] discussed the then recognized method of wound treatment. He stated that not only infected foreign bodies, such as splinters, shreds of clothing, etc., must be removed, but all contamination and injured tissue as well. He stated that the area of attrition was not limited to the tissues which had come directly into contact with the projectile, but that it extended to a depth of from 0.5 to 2 cm. around the path of the missile. He then described the technic of excision of this dead tissue, the ideal method being excision en masse, which, however, could rarely be performed.

In February, 1918, Pilcher and Hall[112] wrote concerning the results obtained when flavine was used as a disinfectant. While seeming to

favor the Carrel-Dakin method, yet they advocated the use of flavine because of the relative ease of wound treatment, a point of extreme importance whenever many wounds required treatment, and the number of surgeons was limited.

In March, 1918, Pearson[114] stated that he had been forced to conclude that in cases where infection was active the use of flavine had no beneficial effect, while in cases in which sepsis had already been controlled and in which repair had begun, flavine exerted an injurious action.

In February, 1918, Pereira[115] stated that it was his belief that the best wound disinfection was accomplished by mechanical means rather than chemical. He also called attention to the fact that germs become accustomed to one disinfectant so that frequently a change to another was indicated. He favored the Carrel-Dakin method of wound treatment, and also stated that when this method was not available, good results could be obtained by means of irrigations with a twenty per cent soap solution.

In March, 1918, Bowlby[117] published an article dealing with the early primary suture of war wounds. He mentioned the necessity of strict asepsis, as well as the necessity of extreme care, in the operative procedure if primary suture was to be successful. He stated that as much skin should be saved as possible, but that no portion of the wounded area should escape dissection. Further he wrote that the excision of small wounds of the soft parts gave the best results, and that patients suffering from such injuries were cured within a few days or weeks instead of months as was the case whenever such wounds became infected. He reported 1,202 cases in which primary suture had been attempted followed by complete success in 70 per cent. Many of the remaining 30 per cent had but a superficial suppuration, and consequently had been closed by secondary suture at an early date.

Morrison[118] in March, 1918, advised the use of a paste made of 1.5 pounds of magnesii sulphas exsiccatus mixed with 11 ounces of glycerine and phenol in the proportion of one to ten, as a dressing for infected wounds.

In May, 1918, Baer[119] wrote concerning primary and delayed primary suture in the treatment of war fractures. He stated that it was then generally conceded that all battle wounds should be considered as infected, that it was necessary to remove all projectiles, clothing and devitalized tissue as early as possible, preferably before the twelfth hour after injury, and that such wounds could then be considered as aseptic in character and primary suture performed, thus converting compound fractures into simple fractures. He laid particular stress upon the necessity of early treatment of bone injuries by either primary or delayed primary suture.

Menciere[120] in April, 1918, again wrote of the advisability of using his embalming treatment of wounds whenever many wounded had to be taken care of within a short time, and careful surgery could not be given to all at once. In such instances he advised the spraying of the wounds with a solution composed of ten gm. each of guaiacol, eucalyptol and balsam of Peru, 10 gm. of iodoform, 100 gm. alcohol and ether sufficient to make one litre.

Carslon and Templeton[121] in May, 1918, published an article dealing with the comparative value of acriflavine and proflavine as germicides in the treatment of infected wounds. They believed that acriflavine was the superior of the two and stated that when it had been used, the wound cleaned up more rapidly in spite of the fact that it was not rendered bacteriologically sterile.

About the same time Massie[122] reported his observations following the use of brilliant green. He preferred a solution of 1 to 500 in 0.5 per cent chloretone, and believed it to be a useful antiseptic, but stated that it would not atone for an incomplete primary wound excision.

Lemaitre[123] during the early part of 1918 reported his belief following an experience of over two years with primary suture in war wounds. He stated that it was not necessary to cut away more tissue in preparing for primary suture than was essential when any other method of treatment was used. All devitalized tissue should be removed, but no more. This having been completed and perfect hemostasis having been obtained, the wound was swabbed with a 5 per cent solution of tincture of iodine, after which it was sutured.

He stated that infection already established was a contraindication to primary suture as well as where there was so much destruction of the circulation of the injured part that proliferation of anaerobic bacteria would be aided in case of suture. He stated that the streptococcus had been responsible for his failures in primary suture, but that this was limited to only 0.84 per cent of the cases in which primary suture had been performed.

Gross[124] in May, 1918, wrote that in the care of the seriously wounded primary suture had reduced the mortality to ten per cent. He further stated that every wound not contaminated with a streptococcus should be treated by primary suture.

Goadby[125] in May, 1918, published an article dealing with the bacterial flora of war wounds as governed by the antiseptic employed. He reported fifty wounds having been treated with

Dakin's solution, forty with "bipp", and ten with flavine and brilliant green. He was of the opinion that one antiseptic was of no more value than another, and stated that immediate excision of lacerated tissues was the only method that had produced a marked diminution in the anaerobic flora of wounds.

Fiessinger and Clogne[126] published a report in October, 1917, concerning the improvement noted in wounds treated by the Carrel-Dakin method. They stated that the improvement noted was caused by the proteolytic action of the hypochlorites upon dead tissue and not because of bacterial sterilization.

Hull[127] in June, 1918, stated that while the ideal method of treating gun-shot wounds was their excision during the pre-inflammatory stage, yet, because of the exigencies of war, such a course was frequently impossible. Whenever conditions were such that complete excision was impossible, he suggested that the instillation of such substances as flavine or dichloramin T might retard the growth of bacteria sufficiently so that the pre-inflammatory stage would be lengthened and thus operation deferred while still efficient.

Wright, Fleming and Colebrook[128] stated in June, 1918, that it was an error to teach that every wound should be sterilized before closure, as a consequence of which primary suture was avoided and secondary suture was performed only after a course of treatment with antiseptics. They believed that following early surgical cleansing a wound was as good as sterile and that primary suture was then indicated.

In June, 1918, Ball[130] published an extensive article upon the subject of delayed primary suture. His report was based upon the records of one hundred consecutive cases, which had previously been debrided and the wound afterwards packed with gauze soaked with flavine, plain gauze, ether packs, or "bipp". Delayed suture had been successful in fifty-nine cases and partially successful in twenty-six. He reported fifteen failures and stated further that there was nothing to indicate that one form of packing was any better than another. He insisted that the first essential was adequate excision of all damaged tissue.

Gross[131] in April, 1918, stated that debridement followed by primary suture of war wounds was the essential in military surgery learned from the war. He advocated this method of treatment in all cases except those infected with the streptococcus.

Baer[133] in August, 1918, wrote concerning primary and delayed primary suture as a method of treatment of war fractures. He stated that primary suture was the method of choice and that it might be successfully performed in from eighty to ninety per cent of such injuries. He believed that not more than twelve hours should elapse between the time of receiving the wound and operation if primary suture was to be successful. He classified certain cases which could not be closed by primary suture, even within the twelve hour limit. These were cases in which shock was so marked that operation was contraindicated within this time limit, as well as such cases as presented deep wounds in which complete excision of all devitalized tissue was uncertain or impossible, as well as wounds from which the foreign body had not been extracted, and also wounds in which the tissue loss had been so great that complete closure was impossible.

Fraser[34] in July, 1918, reported the results observed in 285 cases of primary or subsequent suture, with special reference to the use of antiseptics. The best result obtained was where no antiseptic had been employed, but he stated that this could readily be accounted for because of the fact that with but a few exceptions only the slight wounds had been so treated. He gave as his preference delayed suture to immediate suture.

Plisson, Ramond and Pernet[135] in August, 1918, published an article dealing with their observations upon war wounds infected with a streptococcus. They stated that whenever a variety of this organism was present, primary suture was contraindicated. They believed that no antiseptic was of value, but that it was essential for the infecting organism itself to accomplish its own vaccination.

Morrison, Hartley and Bashford[136] in August, 1918, wrote concerning their observations in two hundred cases of war wounds which had been treated by various methods. While they favored the Carrel-Dakin method, they stated that those cases in which operation had been performed before a lapse of twenty-four hours after receiving the wound, progressed much better than those cases in which the chemical treatment was instituted first and the operation was performed at a later time.

Savery[138] in September, 1918, wrote advocating the use of flavine in septic wounds, or wounds likely to become septic He stated that it was essential that every portion of the wound be reached by the drug, and that the use of flavine should be temporarily discontinued as soon as a yellowish pellicle appeared upon the surface of the wound.

Other references could be cited, but the above review of the greater portion of the literature published upon the subject of the treatment of wounds during the war has been presented in this rather disjointed manner because it well illustrates the difficulties encountered by those who attempted to perform this service. The main outstanding factor is

the utter futility of attempting to sterilize an infected wound by means of any locally applied antiseptic.

One chemical substance after another has been recommended—some of which received much praise, while others were quickly discarded. All appeared to be of about equal value.

Once a wound has become infected, the outcome is dependent upon the ability of the individual in whose body the infection is located, to form immune bodies to the micro-organism causing the infection. This having been accomplished, secondary suture may be employed.

The writer has treated multiple wounds in the same individual, infected with the same micro-organism, with different solutions. One wound would have a dressing of normal saline, a second Dakin's solution and a third acriflavine. All would be ready for secondary suture at the same time, which, in the case of a staphylococcus infection, would be about the twelfth or fifteenth day.

While stationed at DePage's Clinic at La-Panne, Belgium, he saw Delray perform the same experiment and arrive at the same conclusion—namely, that local applications were of but little moment.

The operation of wound debridement is one that should not be entrusted to the surgical novice. To properly carry out this procedure requires experience, anatomical knowledge, and no small degree of skill. All such operations must be patterned after the ideal, which is complete excision of the wound. But rarely can such a procedure be carried out, the consequence being that in the severer types of injuries involving vital structures the amount of surgical wound cleansing is sometimes frequently limited and consequently far from the ideal.

In general, it might be stated that small wounds can be excised completely, while wounds which involve such structures as tendons, nerves and blood vessels must be surgically cleansed, as well as is possible, without removing structures that are essential for proper function. Thus a good operating surgeon will frequently cut away areas that show the presence of dirt upon tendon sheaths, leaving the tendon intact and trusting to the removal of pathogenic bacteria by means of thorough scrubbing with ether or the single application of some germicide, after as complete a dissection of the wound as is possible has been performed . In another case of similar character it may be best to resect the lacerated dirty tendon and suture, or the excision of a V-shaped portion and subsequent suture may be indicated. It is because of the wide range of possibilities as to the better plan to adopt at the primary surgical cleansing, that it is of extreme importance that only surgeons possessing considerable experience and having sane judgment should be entrusted with this type of work.

Certain rules may be given, such as the complete excision of the skin margin, the cutting away of muscle tissue until it contracts under the injury and also bleeds freely, the absolute necessity of cutting away dirty fascia, since its resistance to bacterial infection is low—but the exact amount of tissue that must be excised to avoid infection, and what amount it is safe to leave, since over removal is just as bad as under removal, can only be learned through practical experience.

After thorough surgical cleansing of wounds the application to the freshened surface of many various chemicals has been advocated. In general the practice was to scrub out the wound with ether, not because of any particular bacteriacidal properties of ether, because it has none, but because it is an extremely good solvent of grease and dirt, and thus exposes and removes bacteria contained therein.

During the more than seven years which have elapsed since the great war, the writer has attended to several hundred injuries, which have been assigned to his service at Harper Hospital and the Detroit Diagnostic Hospital at Detroit, Michigan. These have run the gamut from stab wounds of more or less serious import to gun-shot wounds and crushing injuries such as are caused by being run over by autotrucks, etc. Not one case has resulted in an infection, while many cases, receiving their first aid in some institution where debridement and primary suture was not the method instituted, have later come under observation because of most severe sepsis.

In civil practice early surgical wound cleansing is almost always possible, and if there is any danger of the tetanus bacillus having been introduced into the wound, antitetanic serum should be administered at the same time.

The practice of playing safe by means of the introduction of some form of drainage into a debrided wound primarily sutured should be discouraged. Any foreign body inserted into a wound causes a leucocytic and blood cell exudation around the drainage. Such cells die and thus furnish excellent culture medium for any pathogenic bacteria that may be present. Close, tight, primary suture, with deep and firm stay sutures, is essential, as well as thorough debridement, so that as few dead tissue cells as is possible may be left in the wound. Dead tissue cells appear to give pathogenic bacteria a better chance for initial growth and subsequent infection.

It has been frequently stated that debride-

ment of wounds was nothing new and that Larrey advocated this method of treatment during the Napoleonic wars. Such a statement, however, is not strictly within the truth. It is a fact that Larrey advocated early operation and opening of wounds, but before that time Pare, who lived in the sixteenth century, when the practice was to treat gun-shot wounds with burning oil, had discarded that method and advocated wide incision.

The original method of Lord Lister, in which he advised the swabbing of a wound surface with carbolic acid, was, in fact, a chemical debridement, while possibly the burning oil, previously referred to, produced a heat debridement—yet the method of treatment by operative removal of all infected tissue must be acknowledged as a definite benefit derived from the knowledge of wound treatment acquired during the great war.

It remains for all teaching institutions to see that this method of treatment of wounds is properly instituted as a part of the instruction given to all medical students, especially to those who are to engage in the practice of industrial accidents.

A wound, which has been surgically attended within a fifteen hour time limit, and then becomes infected, shows an imperfect knowledge of surgical technique. The time of procrastination in the treatment of wounds has passed. All wounds requiring suture should be excised or debrided, and whenever an infected wound appears, the physician attending should be held responsible, and an explanation demanded. This, indeed, is the first and the greatest lesson learned from the surgical experience of the great war.

THE VALUE OF ANTITETANIC SERUM AS DEMONSTRATED DURING THE WORLD WAR

As early as September 28, 1914, Delorme, in a paper presented before the Academic des Sciences, stated that the greater number of deaths amongst the wounded were caused by tetanus and gaseous gangrene, and because of this fact he urged that antitetanic serum should be administered as early as possible.

Picque also read a paper before the Academie de Medicine in October, 1914, in which he advocated the administration of antitetanic serum upon the field of battle, and in the "Bulletin de l'Academie de Medicine" of October 6, 1914, Walther wrote concerning his experience with tetanus amongst the wounded. He had observed twenty cases, all of whom had been wounded along the Marne, all wounds being caused by shrapnel. He urged that all receiving shrapnel wounds be given prophylactic injections of antitetanic serum.

Kreuter in the "Munchener Medizinische Wochenschrift" of October 6, 1914, made mention of the numerous cases of tetanus occurring amongst the German wounded, and the accompanying high mortality, while Jackobsthal in the same journal, published October 13, 1914, advised the prophylactic injection of antitetanic serum upon the firing line in such cases as presented ugly, jagged wounds, or whenever wounds were soiled with dirt.

Czerny in the "Deutsche Medizinische Wochenschrift" of October 29, 1914, mentioned the exceedingly large number of tetanus cases following shrapnel wounds, and advised that prophylactic injections of antitetanic serum be given the same day that the injury had been received.

Dreyfus writing in the "Munchener Medizinische Wochenschrift" of November 17, 1914, reported twenty-four cases of tetanus resulting from war wounds. He stated that the prevention of scab formation was of much importance whenever the tetanus bacillus was present.

Kocher, in the "Deutsche Medizinische Wochenschrift" of November 17, 1914, advocated that a preventative injection of ten or twenty gm. of antitetanic serum be given every wounded soldier, and further, that following the slightest sign of tetanus, a supplementary injection of ten cubic centimeters be given in the vicinity of the wound, followed by an endoneural injection, as a nerve block, and also an intraspinal injection of ten cubic centimeters.

Hartman was quoted in the Paris Letter of December 17, 1914, published in the Journal of the American Medical Association of January 16, 1915, as recommending the injection of antitetanic serum in all of the wounded at the earliest possible time, while Saniton wrote in the "Bulletin de l'Academie',, published November 24, 1914, concerning his observations upon the treatment of this disease. He had attended twenty-two cases, of which six recovered. He had given bi-daily subcutaneous injections of forty to fifty cubic centimeters of a 2 per cent solution of phenol (Bacellis' Method) to his cases. In addition to this, he had administered, twice daily, enemas composed of six to eight grams of chloral, the yolks of one or two eggs and two hundred and fifty grams of milk.

Jacobsthal and Tanner published an article in the "Munchener Medizinische Wochenschrift" of December 1, 1914, in which they advocated the use of the ultra-violet ray for the destruction of the tetanus bacillus, as well as that of malignant edema. They stated that the application of the ray did not reduce the toxicity of the focus, and consequently surgi-

cal cleansing of the wound was imperative, the ultra-violet ray being used as a supplement to the other known methods of treatment.

December 14, 1914, Bazy, in an address before the Academie des Sciences, emphasized the necessity of administering prophylactic injections of tetanus antitoxin in all wounds regardless of their origin. He reported having seen fatal tetanus develop in nine out of one hundred and twenty cases not treated with tetanus antitoxin and in which the injuries resulted from bullet wounds.

Rogers published an article in the British Medical Journal of December 19, 1914, in which he advised the local application of a solution of potassium permanganate, one to five hundred, to tetanus infected wounds.

Kellerman in the "Munchener Medizinische Wochenschrift" of December 29, 1914, reported recovery in a case of tetanus after the injection of ten cubic centimeters of hydrogen dioxide into the wound. Serum therapy was also used.

In the "Berliner Klinische Wochenschrift" of February 8, 1915, Behring announced that they had produced a sufficient quantity of antitetanic serum so that it could be given in all wounded cases and stated that to do so was advisable. An article by Ritter appeared in the same issue in which he had followed the results obtained in the treatment of 60,000 wounded. Of this number, 0.7 per cent had died and tetanus had accounted for 0.4 per cent of the deaths. He advocated not only prophylactic injections of antitetanic serum, but the excision of the wound to a depth of one centimeter and into sound tissue as well.

Proust[143] stated in March, 1915, that since prophylactic antitetanic injections had become universal not a case of tetanus had developed in his service. Osler in the London Letter of July 23, 1915, published in the Journal of the American Medical Association of August 7, 1915, also stated that the occurrence of tetanus had practically ceased because of the early administration of antitetanic serum.

In August, 1915, Berard and Lumiere[144] wrote of what they termed tardy tetanus. They reported a number of cases in which tetanus had developed following secondary operations or other trauma, upon soldiers who had received prophylactic antitetanic serum after the original injury, and apparently recovered from their wounds. They insisted upon the necessity of repeating preventive injections of antitetanic serum before secondary operations were performed.

Wolf[145], from the German side, stated in September, 1915, that following the compulsory administration of antitetanic serum cases of tetanus had practically disappeared. He stated that prophylactic administration was especially indicated in shrapnel and grenade wounds.

Bruce[146] in October, 1915, reported two hundred and thirty-one cases of tetanus, with ninety-eight recoveries and one hundred and thirty-three deaths. He stated that cases of short incubation period and untreated furnished a mortality of 91 per cent. Cases presenting symptoms within ten days gave a mortality rate of 66.6 per cent, while cases presenting a period of from eleven to twenty-five days before the appearance of initial symptoms, gave a mortality of 39 per cent.

Only thirty-seven of the two hundred and thirty-one cases reported were known to have received antitetanic serum before the onset of symptoms. Of these, eighteen recovered and nineteen died.

After considering the results of treatment in the cases which had recovered, he decided that intraspinal injections were more efficacious than either subcutaneous or intravenous. He concluded that the essentials of proper treatment were—first, the placing of the patient in a quiet, darkened room; second, surgical cleansing of the wound, and third, the intrathecal injection of at least three thousand units of antitoxin accompanied by the subcutaneous and intravenous injection of from ten thousand to twenty thousand more. He advised the repetition of such injections whenever indicated, as well as the administration of sedative drugs, such as chloral.

MacConkey[147] stated that from 500 to 1,000 U. S. Army units of tetanus antitoxin was the correct prophylactic dose in most cases, and he further advised the repetition of the injection once or twice at weekly intervals in cases of severe wounds.

Teutschleander[148] reported a case in which fatal tetanus developed five months after a grenade wound of the chest. Antitetanic serum had been given, but a fragment of the grenade was located in one of the muscles of the back and tetanus bacilli were isolated from this scrap.

Kummell[149], after an investigation of the prevalence of tetanus in German hospitals during the first ten months after the giving of prophylactic injections of antitoxin had been instituted, reported that one hospital, which formerly had had many cases, now showed only one amongst seven hundred severely wounded, and this patient had failed to receive the prophylactic dose. Amongst 1,555 severely wounded, only 1 case developed. He believed that protection following prophylactic injection lasted but about 15 days and, as a consequence, he recommended the repetition of a second prophylactic injection at the end of one week in cases presenting badly soiled wounds.

In June, 1917, Bruce[150] reported two hundred cases of tetanus which had been treated at home military hospitals. The mortality had been 36.5 per cent, and of these cases, one hundred and two had received prophylactic injections of antitoxin. Of the one hundred and two who had received such treatment, seventy-four recovered and twenty-eight died, giving a mortality of 27.4 per cent in these cases.

Berard and Lumiere[151] in May, 1916, reported over twenty cases of tetanus developing in wounded following late operation. They quoted Roux's opinion that protection began to become less about the fifteenth day following the administration of antitetanic serum and was gone about the fortieth day. They advised the repetition of a prophylactic injection before undertaking any operative procedure.

Bacri[152] in October, 1916, advocated the giving of from 50 to 60 cubic centimeters of antitetanic serum daily for six days in cases in which tetanus had made itself manifest. He reported thirteen cases of established tetanus with recovery in all. Only five of these cases had previously received a prophylactic injection.

The London Letter published in the issue of January 5, 1918, of the Journal of the American Medical Association, quoted Bruce to the effect that early and thorough treatment with antitoxin had reduced the mortality in tetanus from 50 per cent to about 20 per cent. Bruce refrained from expressing an opinion as to whether this improvement was due to the specific treatment or to other factors. Concerning the length of the period of incubation, he stated that when the symptoms of tetanus appeared within ten days after the time of receiving the wound, the mortality was 40 per cent, when symptoms had first appeared between the eleventh and the twenty-fourth day, the mortality was 25 per cent, while when the incubation period was greater than twenty-five days, the number of deaths was reduced to thirteen and six-tenths per cent. The longest incubation period noted was three hundred and sixty-five days, while the shortest had been three days.

He further stated that since the beginning of the war, the average incubation period had been steadily lengthening, probably because of the systematized prophylactic administration of antitoxin.

About this time Leyva[100] published an article in which he advocated the use of sodium persulphate combined with antitetanic serum as a method of treatment for established tetanus.

Schellekens[105] wrote concerning local and tardy tetanus stating that early general tetanus had been abolished because of the administration of preventive antitetanic serum. He also stated that secondary or tardy tetanus had been conquered by the giving of preventive serum before attempting any secondary operative procedure. As a guard against anaphylaxis he advised a test injection of from 0.1 to 0.5 cubic centimeters of serum before administering the second prophylactic injection.

He called attention to cases of localized tetanus reported in which the symptoms had been restricted to the head, or a limb, or, again, to only one side of the body. Such cases were termed tardy tetanus and usually followed a secondary operation in which prophylactic injection had been overlooked before the secondary operation had been performed. He further stated that simple exercise of a part in which the tetanus bacillus had been implanted might be followed by an active infection.

Taylor[109] in March, 1918, published what he believed was the then present status upon the subject of tetanus. He stated that acute tetanus had become a comparatively rare disease because of the general use of antitetanic serum as a prophylactic injection. The amount of this preparation recommended was from 750 to 1,500 units in the French army and 500 U. S. A. units in the British army. He stated that in severe cases, especially those complicated with fracture, a second injection of 1,500 units should be given within six days. He believed that the immunity afforded by one injection lasted but ten days, and that acute tetanus might subsequently develop in spite of the primary injection. He stated that such cases had been observed where amputations had been performed at the front and in which devitalized tissue had been enclosed within the amputation flaps. From this observation he concluded that early debridement was of as much importance as the administration of antitetanic serum. He next mentioned the necessity of a prophylactic injection of 1,500 units of antitetanic serum before any secondary operation could be performed with safety, advising a preliminary desensitizing injection of from 0.5 to 1 cubic centimeter as a preventative to an anaphylactic reaction.

He stated that the treatment of acute tetanus was highly unsatisfacotry and that large injections of antitoxin by any method had but little effect. The same was true of phenol and magnesium sulphate, and that the prognosis in active tetanus was governed chiefly by the length of the period of incubation.

Concerning chronic tetanus, in which classification he included local tetanus, he stated that the treatment was largely surgical. In such cases wounds should be explored, dead tissue resected, bone fragments curetted and sequestrae removed.

As early as December, 1916, Gibson[153] had

recommended that injections of antitoxin should be given as soon as tetanus was suspected. He advocated giving about 1,500 units into the neighborhood of the wound, 5,000 to 20,000 units intraspinally and from 10,000 to 50,000 intravenously, the latter being given in divided doses during the first twenty-four hours. This was to be followed by intravenous injections of from five thousand to fifteen thousand units during the next twenty-four hours and, if the symptoms were still severe, he advised that an intraspinal injection be repeated upon the third day. He further stated that intravenous injections should be continued until apparent cure resulted.

Thus it can be seen that the treatment of active tetanus advocated in 1916 was much the same as the treatment advocated three years later, while the benefit of prophylactic injections was well shown by Bruce[154] as early as January, 1917, when he stated that before prophylactic injections of antitetanic serum were administered, the incidence of tetanus amongst the wounded had been in September, 1914, sixteen per thousand; in October, 1914, thirty-two per thousand, while in November, 1914, it had fallen to two per thousand, about where it had since remained. This fall could only have been credited to the prophylactic use of antitetanic serum.

After a critical analysis of the papers published upon the occurrence of tetanus amongst the wounded in the great war, the following conclusions appear to be the most important: First, the prophylactic administration of antitetanic serum has been proven to be of extreme value. It may be argued that wound debridement was an important factor in the prevention of tetanus. Undoubtedly this is true, but prophylactic antitetanic injections had been proven of value before wound excision was practiced, and consequently its importance was firmly established. Second, the fact that immunity secured by means of the administration of antitoxin was of comparatively short duration is of extreme value. Thus, when we vaccinate against typhoid fever, immunity lasts from one or two years to a lifetime. The same is true of smallpox, but when we borrow specific antibodies from another individual or animal, as is the case in the use of antitetanic serum, the resulting immunity is of extremely short duration. Thus, repeated injections were recommended in the case of particularly severe wounds, which could not be completely debrided, and second injections of antitoxin became an established regulation whenever secondary operations were indicated.

From this we can conclude that the last word in the establishment of immunity against infection by means of the tetanus bacillus has not been written, since when we borrow antibodies formed in the tissue of another animal, immunity conferred is of such short life, while if such antibodies are primarily established, the resulting immunity is more efficacious and of longer duration.

Lastly, it may be stated that nothing of extreme importance was learned concerning the treatment of established tetanus. Large and repeated doses of antitoxin still remain the most effective method of treatment. However, the best method is that of prevention, and prevention is best obtained by the immediate administration of antitoxin in all cases where there is the possibility of the bacillus of tetanus having been introduced.

THE MOBILE TREATMENT OF INFECTED JOINTS

Before the war there was no condition, the treatment of which was more rigidly outlined than was that of infected joints. It was regarded as of primary importance to place the part at complete rest. Thus proper splinting was always regarded as the essential, whatever other method of treatment was instituted, and an ankylosed joint, which possibly could be more or less mobilized by subsequent operative procedure, was thought the best result that could be obtained.

In January, 1915, Ritschl[155], while not discussing infected joints in particular, called attention to the fact that repose was harmful for both joints and muscles, being followed by stiff joints and weakened muscles. He advocated that in injuries of the extremities, joints be moved as early as possible and that massage be applied to muscles that could not be exercised.

Von Haberer[156] in February, 1915, wrote that fixation and non-intervention was the best treatment in wounds of joints. When infection did occur he advised that multiple small incisions be made through which rubber drains were introduced.

Tuffier[157] in June, 1915, advised resection of the knee joint instead of a thigh amputation following serious wounds of the knee.

Gray[158] in July, 1915, stated that wounds of the knee joint liable to become infected demanded immobilization, while Gangolphe[159] in October, 1915, also stated that the main essential in the treatment of infected joints was immobilization.

Lockwood[160], in discussing gun-shot wounds of the knee joint in January, 1916, advised the removal of all foreign bodies and loose bone at the earliest possible date, after which he instituted absolute immobilization. He further stated that when inflammation occurred, passive movements should not be allowed until three weeks had elapsed after its subsidence.

In April, 1916, Jones[161] stated that joint wounds invariably ended in ankylosis, and that the proper treatment was such as would result in the most useful position following fixation. He described what he regarded as the correct position in different joint injuries.

In May, 1916, Nove-Josserand and Tuffier reviewed 1,132 cases in which resections of shoulder, elbow or wrist joints had been performed, and 678 cases involving hip, knee and ankle joints. They stated that, in their opinion, secondary resection was preferable to primary resection whenever possible, but that many limbs had been saved because of primary resection. This was especially true with regard to wounds of the knee joint.

Delbert[163] in June, 1916, wrote concerning what he considered the proper treatment for knee joint wounds. He advised puncture in cases presenting joint effusion following small wounds in which no foreign body could be demonstrated. If, upon microscopical examination of a smear of the fluid obtained, germs were found, he advocated the immediate operation of simple arthrotomy by means of lateral vertical incisions. If no bacteria could be demonstrated, he stated that it was safe to wait and immobilize the joint. During this period he stated that the fluid removed should be incubated for twenty-four hours in a pipette. If germs could not then be demonstrated, no further action was necessary. If, however, germs developed, and especially if streptococci were present, a transverse incision was then made through the patellar ligament.

Whenever a foreign body was present its immediate removal was indicated and subsequent suture was governed by the result of pyo-culture. In cases of severe infection he advocated wide arthrotomy followed by immobilization and extension.

Collie[164] in August, 1916, was one of the first to protest against immobilization of joints. He stated that such treatment produced adhesions and advised that passive motion be instituted within a few hours, together with muscle massage. He stated that in his opinion splints should not be used in joint injuries.

Ponomareff[165] about this time reported his impressions of knee joint injuries in the Russian service. He advised rest and immobilization in infected cases, and whenever suppuration continued he stated that incision and drainage was indicated. If this proved insufficient, he stated that joint excision or amputation must be employed.

Fullerton[166] in November, 1916, published an article in which he stated that excision of septic wounds into the knee joint, with removal of foreign bodies when present, followed by suture of the synovial membrane, was the procedure of choice.

Depage[167] in December, 1916, reported one hundred and twenty-four cases involving wounds of the knee. He classified his cases as follows: First, wounds without large separation of the joints and without very serious lesions of the bone extremities: second, wounds with serious and wide lesions of the bone extremities.

He stated that various methods of treatment had been used. At first joints were drained after a shorter or longer period, together with the cleansing and excision of torn tissue. Such wounds had been irrigated with some antiseptic solution, and the limb was kept rigidly splinted. Discarding this method of treatment, Depage had next adopted that of Carrel, after opening and loosening the joint.

Still later he had practiced the immediate cleansing and closing of the knee joint despite extensive bone lesions. Wounded and bruised tissues were excised, the bullet or foreign material removed, the joint next washed with either Dakin's Solution or with ether, and the bones curetted. A small rubber drain was inserted for twenty-four hours and immobility secured. If, in spite of this, infection appeared, arthrotomy was resorted to and the Carrel treatment applied. However, when bone lesions were extensive, it was preferable to perform resection at once.

Derache[168] in January, 1917, advocated thorough surgical cleansing of knee joint wounds followed by suture of the synovial membrane and capsule. He also stated that early joint movement was essential, whenever possible, for the proper restoration of function.

Willems[169] in March, 1917, stated that immobilization was contrary to physiology and was positively contra-indicated. Active movement was essential in order to prevent stiff joints and muscular atrophy. Willems advised that every wound of elbow or knee should be treated by early debridement of the path of the projectile with removal of the same when present, as well as the removal of loose bony sequestrae. This having been accomplished, he advised primary closure. He recommended that active movements be commenced at once and that, if suppuration resulted, wide arthrotomy be performed and active movements continued.

In June, 1917, Makins[170], following his observations with British forces, recommended the earliest possible surgical treatment of joint wounds followed by primary suture whenever possible. This having been accomplished, he advised immobilization and extension.

Novis[171], speaking of wounds of the knee joint, insisted that, when infected, free drain-

age of the posterior pouches was essential. He stated that when this was done early the majority of cases would recover with a useful limb and many, with a fair amount of motion. His technic was to insert drainage tubes into the joints through incisions on both sides of the patella. Next, an incision was made on both sides between the hamstring and gastrocnemius muscles. He advised that the drainage tubes be removed as early as possible, and passive movements started.

Campbell and Woolfenden[172] in August, 1917, recommended that absolute rest and fixation be employed in knee joint wounds together with the strictest asepsis and the use of Carrel's method.

Barling[173] in September, 1917, published a report following a review of eight hundred and forty-five cases of wounds of the knee joint. He advocated excision of the wound, the removal of loose bone and foreign materials followed by irrigation of the joint surface and closure by suture.

Gay[174] published an article at the same time in which he advised similar primary treatment, laying special emphasis upon the thoroughness of the surgical cleansing of the tract.

Page[175] also wrote at this time advising complete surgical cleansing, whenever this could be accomplished within a twenty-four hour time limit. He also stated that immobilization was essential, especially after the onset of infection.

Mayo-Robson[91] suggested that by adjusting the position of the leg in knee joint infections, the supra-patellar pouch could be rendered the most dependent portion of the joint, thus affording better drainage. He inserted a drainage tube at the top of the pouch, and stated that when this method was practiced early, joint mobility was unimpaired.

Schwartz[96] in September, 1917, protested against the incising of the capsule and severing of the patellar tendon in knee joint wounds unless such a procedure was absolutely essential. He advised the cleansing of the wound from the side of the knee, leaving the patellar ligament intact whenever the bone was not fractured. He stated that whenever the bone was shattered, resection was inevitable.

Maisonnet and Chauvin[102] wrote that immediate operation was indicated in wounds involving joints. They recommended joint drainage, the removal of all sequestrae and early resection whenever indicated.

Judd[108] in February, 1918, advised that perforating wounds of the knee joint be treated by puncture, compression and immobilization. He stated that when foreign bodies were present, early intervention was essential. In such cases he advocated the performance of arthrotomy within forty-eight hours, together with the removal of the projectile, all foreign bodies and loose bone fragments; excision of the path of the projectile, followed by the cleansing of the joint and primary suture. Whenever there was extensive bone destruction he stated that primary resection was indicated.

Tatlow[110] in January, 1918, stated that early radical operation in wounds of the knee joint, where the capsule could be sutured, had been followed by a sterile joint in 94 per cent of his cases. He also insisted upon the necessity of splinting all joint injuries.

Speed[113] in March, 1918, wrote concerning gun-shot wounds of the knee joint . He stated that such injuries should be splinted at the first dressing post and that operation should be performed within eight hours, whenever possible, and within twenty-four hours as a maximum. After operation, splints were re-applied.

In infected joints he favored amputation when the infection was severe, although he described a method of draining such cases by means of a small opening through the upper portion of the subcrural pouch, the leg then being fixed in a Thomas splint and the patient turned upon the abdomen.

Monsarrat[116] in March, 1918, published an account of his experiences in the treatment of wounds of the knee joint. He insisted upon the necessity of early operation, which comprised the excision of the wound together with the removal of foreign bodies and detached bone fragments. He advocated no drainage into the joint proper, and stated that fiaxtion by means of splinting was essential.

Charles[129] in June, 1918, wrote concerning wounds of the knee joint. In this article he called attention to the necessity of accurate knowledge of the location of the foreign body and that the extent of bone injury should be ascertained by means of roentgenography whenever possible. He insisted upon a careful excision of the tract of the wound, together with the removal of all infected material. He stated that in nearly all cases it was possible to remove the entire tract of the missile intact down to the joint cavity. If the foreign body was found loose in the joint cavity accompanied by no bony injury, its removal and the irrigation of the cavity with normal saline was sufficient to permit primary closure. Whenever the foreign body was impacted in bone, it was removed with the portion of bone surrounding it. He advocated the filling of holes in articular surfaces with fat taken from the infrapatellar pad. After operation he advised the use of a Thomas splint.

Willems[132] in March, 1918, published another article relative to active mobilization of joints after war wounds. He advocated the

evacuation of pus in infected joints and active movement thereafter. He insisted upon the necessity of motion from the very first, and stated that the results following this method gave perfect function. He also wrote that if sudden pain developed and joint movement became limited, it was due to effusion which, when evacuated, allowed motion to be again instituted.

In February, 1918, Delmas[137] published an article dealing with his experience in the treatment of wounds of the knee joint. He stated that Willems' method of immediate active mobilization had resulted in more rapid and perfect cures in aseptic cases than had been observed whenever any other method had been employed.

Neve[139] in September, 1918, published his opinion concerning the proper care of septic wounds of the knee joint. He suggested tapping and the subsequent distending of the joint with some antiseptic such as flavine or iodoform emulsion during the earliest infective stage. This he combined with fixation of the leg. He stated that whenever sepsis was established thorough drainage was essential, and advised suprapatellar, anteriolateral and posteriolateral incisions. He favored Carrel's method as the best for the introduction of any antiseptic within the joint cavity.

Fasani[140] in July, 1918, stated that conservative treatment of joint wounds gave poor results and he consequently advocated early operation in the more serious cases.

He employed a median longitudinal incision in wounds of the knee joint, the incision being carried through the patella and dividing it in half. He began passive movements from the fifth to the eighth day following operation.

Campbell[142] wrote concerning wounds of joints in October, 1918. He stated that absolute rest and fixation were the first essentials. He was of the opinion that movement could be begun about the tenth day in aseptic cases, but that when even a moderate degree of sepsis was present, three weeks free of clinical symptoms were essential before movement could be instituted.

After a careful resume of the articles written concerning the treatment of joint injuries and infections, two facts stand out as being of the greatest importance:

First—Early surgical cleansing will permit primary closure in open wounds of the joints, and injuries treated in this manner will not result in infection.

Second—When infection is present in a joint cavity proper, drainage and active motion give the best end results. This method of treatment can always be used provided that the amount of bone injury present is not so great as to contra-indicate it.

Willems' method of mobile treatment of joint infections gives promise of being of even greater benefit in the infections commonly met with in civil life than was the case in war wounds. Thus the acute joint infections caused by the gonoccus, staphylococcus and streptococcus, and not associated with primary bone injury, furnish the type most amenable to this method of treatment. Muscle atrophy can be avoided, and joint ankylosis can and should be prevented.

Active mobile treatment with incisions sufficient to give ample drainage is one of the three great surgical lessons gleaned from the war.

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PUBLIC HEALTH ACTIVITIES

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MICHIGAN DEPARTMENT OF HEALTH

QUESTIONS AND ANSWERS ON THE KAHN TEST

During the past six months the writer has had occasion to demonstrate the Kahn Precipitation test at New York City before the New York State Medical Society, at the Trudeau Sanatorium, Saranac Lake, at the University of Rochester Medical School, Rochester, New York, and at the Army Medical School, Washington, D. C. A number of questions were asked during these demonstrations, which, it is believed, will be of interest to Michigan physicians. The presentation of these questions with their answers forms the basis of this resume.

1. What is the essential difference between the Wassermann and Kahn tests?

There are several differences. The Wassermann test is based on the immunologic principle of "complement fixation" and the Kahn test is based on the immunologic principle of "precipitation." The technique of the Wassermann test, because of our lack of sufficient knowledge, is empirical since it is based on a system of arbitrary units, while the technique of the Kahn test is based on known principles which govern the phenomenon of precipitation.

However, the substances in syphilitic serum which give positive reactions with either test are probably identical, the two reactions detecting the same reagin.

2. On what basis is it claimed that the Wassermann test has a greater number of sources of error than the Kahn test?

The sources of error of the Wassermann test are due largely to the fact that the test requires five different animal reagents, four of which must be standardized in relation to the remaining reagents, each day that the test is performed. These standardizations or titrations may vary sufficiently from day to day as to bring about variations in the final results. Thus, on one day the Wassermann system might be "fast" and lose positive reactions and on another day it might be "slow" and gain positives. The Kahn test, on the other hand, is relatively free from sources of error because the test requires but one reagent—a stable antigen—aside from the patient's serum, and the procedure is relatively simple. These technical differences between the two tests help explain the occasional variation in the results even when it is assumed that both tests detect the same reagin in syphilitic serum.

3. Is the Kahn test specific for syphilis in the presence of pathological conditions of non-syphilitic character?

So far as experimental work indicates, the specificity of the test is not influenced by non-syphilitic pathological conditions. The ocassional non-specific results of the Wassermann test in such conditions are undoubtedly due to changes in the serum which increase the the fixation power of complement. The Kahn test does not employ complement and is thus free from non-specific complement fixation reactions. It should not be assumed, however, that this test is perfect. A biological test is bound to have a greater factor of error than a physical or chemical method.

4. Why is the Kahn test more persistantly positive in treated cases than the Wassermann test?

The tendency of the Wassermann test in treated cases is to fluctuate from positive to negative and positive again.

This is in part due to fluctuation in reagin in the patient's serum but also to fluctuations in the complement fixation test. Fluctuations in the precipitation test are reduced to a minimum making its results more constant.

5. Of what value is the Kahn Quantitative Procedure?

The blood of a patient before treatment may show 400 reacting units, at the end of the first course of treatment 200 units, and the end of the second and third courses 120 and 40 units, respectively. The routine test in all these examinations would be four plus and give no indication as to the serologic effect of the treatment. The physician thus has a record of the relative potency of serum before treatment with which to compare results after treatment.

6. Is the Kahn spinal fluid procedure as specific as the Wassermann test?

Our experience with spinal fluids is limited to about 3,000 examinations. This number indicates that this procedure is in certain cases more specific in the diagnosis of neurosyphilis than the Wasserman test.

7. What type of reactions does the Kahn test give with "anticomplementary" serums?

The fact that a serum or spinal fluid is

anticomplementary in the Wassermann test does not in any way affect the reaction with the Kahn test, the results being no less dependable than with non-anticomplementary serum.

8. How does the Kahn test compare in sensitiveness with the Kolmer-Wassermann test?

Giordano recently reported 96 per cent agreement between the two tests and Owen and Cope, 94 per cent. Greenbaum believes that the two tests should be run together as is done in Kolmer's own laboratory. Perhaps the most careful comparative study of the two tests was carried out by Kelly in Kolmer's laboratory. According to Kelly's results the Kahn reaction is more sensitive than the Kolmer-Wassermann in latent and neurosyphilis.

9. What is the comparative sensitiveness of the Kahn and Wassermann tests in primary syphilis?

The consensus of opinion of practically all workers is that the Kahn test is more sensitive than the Wassermann in primary syphilis. The former test is practically always positive during the stage of the chancre.

10. What is the significance of a four plus Kahn reaction in the absence of clinical evidence of syphilis?

The findings of practically all workers is that a four plus Kahn reaction means syphilis. However, the Kahn test or any other laboratory test should be considered only a single manifestation of syphilis to be interpreted in the light of clinical evidence or a history of infection. The final diagnosis of syphilis and the decision as to treatment in a given case must always remain problems of the clinician.

11. How widely is the Kahn test used without the Wassermann?

The Michigan Department of Health reported close to 60,000 Kahn tests (without Wassermanns) from October 15, 1925, to August 1, 1926. The United States Navy is employing the Kahn test as the official method for the serum diagnosis of syphilis in all its stations throughout the world. The test is employed in numerous hospitals in this country and is gaining considerable favor in foreign countries. The use of the Wassermann test is limited only to large medical centers while the Kahn test may be used everywhere with the same degree of accuracy. This makes the Kahn test especially acceptable in China, India, Russia, South America, etc.

12. What, in general, is the consensus of opinion of different workers on the Kahn test?

A composite summary of some 120 articles which have thus far appeared on the Kahn test would indicate that as workers become better informed on the correct technique of the test the more favorable are their findings. It is well to recall that practically all comparative studies on this test with the Wassermann are by workers who are masters in the technique of the latter test and but beginners in the former. Still, the literature of 1926 brings up practically only two questions—whether the Kahn test should be used alone or in conjunction with the Wassermann test. On examination of this literature, one soon finds that those who perform the Kahn test according to standard requirements are the ones who believe that the test can be used alone as a serum diagnostic agent. R. L. K.

NASAL DIPHTHERIA?

As previously reported,* the routine procedure in the laboratory diagnosis of throat infections includes a "direct examination." In about 80 per cent of the specimens from

Fig. 1 Direct Examination

diphtheria cases with membrane, a positive diagnosis is made on direct examination and confirmed by culture. Occasionally the laboratory diagnosis depends entirely upon the direct examination, for overgrowth by proteolytic organisms make the identification of diphtheria impossible without plat-

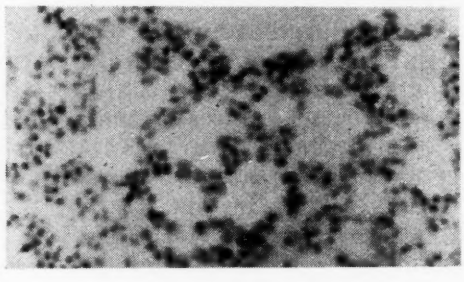

Fig. 2 Smear from Mixed Culture

ing and isolation—a procedure which requires two to four days. (Fig. 4).

The following case is one of five similar cases reported in the laboratories of the

* Laboratory Manual, Michigan Department of Health, 1923.

Michigan Department of Health during the past year.

Clinical History (quotation from physician's letter):

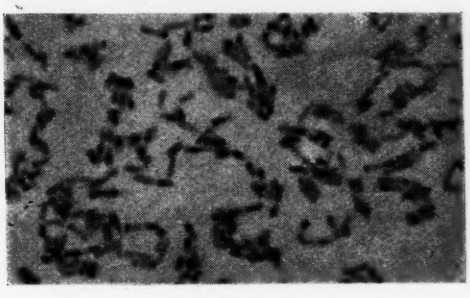

Fig. 3 Smear from Pure Culture

"Patient male 11 years old having hemorrhages on account of duodenal ulcer, ordinary symptoms of vomiting, rapid pulse, general weakness, etc.

For several days both nares have discharged freely giving off clear mucoid discharge but no blood, no air getting through passages. Today there seemed to be a mem-

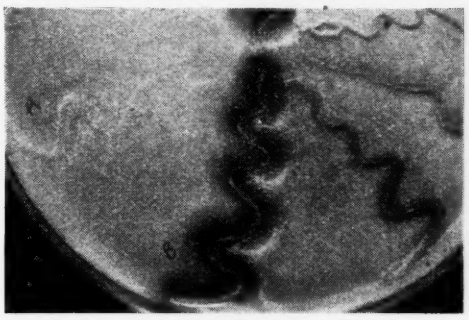

Fig. 4 Loeffler's Plate
a. Diphtheria Bacilli—b. Proteolytic Bacilli

brane in both nostrils, two pieces of which I am sending in enclosed tube. Boy never had any temperature."

Laboratory findings: Klebs-Loeffler bacilli on direct examination (Fig. 1), culture overgrown on Loeffler's serum medium incubated 18 hours (Fig. 2), pure culture after plating which produced toxin lethal for guinea pigs. (Fig. 3). C. C. Y.

WHAT TO DO IN CASE OF DOG BITE

1. The dog should be quarantined until history of rabies is investigated.
2. The wound should be cauterized with nitric acid.
3. If the dog shows signs of rabies, he should be killed by shooting through the heart, and the head sent to the Pasteur Institute, Ann Arbor.
4. If the child is bitten by a rabid dog, treatment can be had at the Pasteur Institute, Ann Arbor.
5. If dog shows no signs of rabies, civil action is the only recourse. C. C. Y.

PRESCHOOL CHILDREN AND DIPHTHERIA

The immunization of school children against diphtheria has gradually become a very general practice throughout Michigan. Toxin-antitoxin has been distributed to 77 of the state's 83 counties during the past 18 months. From January 1 to June 30, this year, 258,330cc of toxin-antitoxin were sent out, the largest quantity distributed in any six months period since biological products for the control of diphtheria were made available without cost.

The progress of the campaign has been satisfactory in many respects, but up to the present time comparatively few children under six years of age—the age group where diphtheria is an important cause of sickness and death—have been reached. When the preschool children are immunized diphtheria will be a thing of the past, but not until that time.

The family physician can do more to encourage the protection of young children against diphtheria than any other individual. It is hoped that physicians will appreciate this fact, and will impress upon the parents of children under their care the necessity for toxin-antitoxin immunization early in life.

G. H. R.

DR. RAMSEY TO JOHNS HOPKINS

After six years of service with the Michigan Department of Health, Dr. George H. Ramsey left Lansing, September 1st, to become Associate Professor of Epidemiology in the School of Hygiene and Public Health, Johns Hopkins University.

Dr. Ramsey joined the Department staff as clinician with the traveling tuberculosis clinic, later becoming director of the Bureau of Epidemiology and Deputy Commissioner of Health.

COMMUNICABLE DISEASE CONTROL

Report of the Bureau of Epidemiology for the fiscal year ended June 30, 1926, shows that representatives of the bureau made 1,680 visits to communities throughout the state. The majority of these visits followed requests from health officers or physicians for assistance, and were not the result of local situations demanding state intervention.

Services were rendered 398 cities, villages and townships in 77 of Michigan's 83 counties. The types of service given are shown in the following brief summary:

Type of Service	Number of Visits
Venereal disease control	687
Vaccination or immunization	630
Service in state or county institutions	179
Control of epidemics	64
Diagnosis of communicable diseases	35
Enforcement of quarantine	10
Miscellaneous services	75
Total	1,680

The sources of 34 outbreaks of communicable disease were investigated by medical inspectors from the bureau. There were no widespread communicable disease outbreaks during this time.

Plans for supervising typhoid carriers were inaugurated. Twenty known carriers were examined and given instructions as to their occupations and personal hygiene. These individuals agreed not to engage in work involving the handling of milk products or raw foods. In one instance the State Administrative Board granted funds for the partial maintenance of a carrier.

Much emphasis was placed upon the diphtheria protection campaign, especially upon encouraging local programs sponsored by county medical societies, financed locally, and carried on by local physicians. For demonstration and propaganda purposes the clinic unit from the department visited 10 counties, giving toxin-antitoxin (three treatments) to 29,235 individuals. The Bureau of Laboratories reported 496,610cc of toxin-antitoxin distributed to health officers and physicians in 72 counties during this period of time. Independent local campaigns have been reported from 52 counties and 90 individual cities and villages.

Investigation of methods for the prevention and treatment of scarlet fever have been carried on in co-operation with the Bureau of Laboratories and the Bureau of Institutional Health Administration. Report of a portion of this work, "Dosage of Toxin for Active Immunization Against Scarlet Fever" has already been published in the Journal of the American Medical Association.*

In general the number of cases of communicable diseases reported for August 1926 indicates quite a satisfactory condition. There was considerable decrease in the number of cases of pneumonia reported as compared both to July of this year and August of 1925 and was slightly below the average for the past five years. In typhoid fever there was quite a sharp increase as compared to July but this is a seasonal increase which was expected. It is, however, considerably below August of last year and below the average for the past five years. In diphtheria, while slightly below July, it is very materially above August of last year but it is hoped that this increase will not continue. Whooping cough showed quite a decrease from July and is considerably below August of a year ago. Scarlet fever showed a marked decrease from 641 cases reported in July to 273 in August. This, however, is slightly above August of 1925. Measles has evidently passed the peak and decreased from 946 cases in July to 231 in August but this is more than double August of 1925. There was a slight decrease in the number of cases of venereal disease reported.

W. J. V. D.

* Vol. 86:1340. May, 1926.

PREVALENCE OF DISEASE

August Report

Cases Reported

	July 1926	August 1926	August 1925	Average 5 years
Pneumonia	176	114	137	116
Tuberculosis	510	462	247	485
Typhoid Fever	43	75	114	167
Diphtheria	333	326	200	367
Whooping Cough	633	625	788	613
Scarlet Fever	641	273	269	339
Measles	946	231	109	155
Smallpox	36	40	29	50
Meningitis	9	9	5	9
Poliomylitis	2	13	11	49
Syphilis	1,232	1,211	1.128	827
Gonorrhea	942	794	801	881
Chancroid	7	5	8	12

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health

August 1926

	+	—	+—	Total
Throat Swabs for Diphtheria	.....	.....	....	676
Diagnosis	36	381	....	.....
Release	47	80	....	.....
Carrier	5	112	....	.....
Virulence Tests	7	8	....	.....
Throat Swabs for Hemolytic Streptococci	.....	.....	....	412
Diagnosis	88	208	....	.....
Carrier	12	104	....	.....
Throat Swabs for Vincent's	34	381	....	415
Syphilis	.....	.....	....	5916
Wassermann	7	25	2	.....
Kahn	1003	4815	62	.....
Darkfield	1	1	....	.....
Examination for Gonococci	265	1696	....	1961
B. Tuberculosis	.....	.....	....	1011
Sputum	245	732	....	.....
Animal Inoculations	1	33	....	.....
Typhoid	.....	.....	....	259
Feces	11	88	....	.....
Blood Cultures	6	50	....	.....
Urine	.....	13	....	.....
Widal	11	80	....	.....
Dysentery	.....	.....	....	66
Intestinal Parasites	.....	.....	....	13
Transudates and Exudates	.....	.....	....	155
Blood Examinations (not classified)	.....	.....	....	530
Urine Examinations (not classified)	.....	.....	....	298
Water and Sewage Examinations	.....	.....	....	1425
Milk Examinations	.....	.....	....	45
Toxicological Examinations	.....	.....	....	19
Autogenous Vaccines	.....	.....	....	9
Supplementary Examinations	.....	.....	....	210
Unclassified Examinations	.....	.....	....	508
Total for the Month	.....	.....	....	13928
Cumulative Total (fiscal year)	.....	.....	....	27962
Decrease over this month last year	.....	.....	....	4434
Outfits Mailed Out	.....	.....	....	15212
Media Manufactured, c.c.	.....	.....	....	855590
Diphtheria Antitoxin Distributed, units	.....	.....	....	19804000
Toxin Antitoxin Distributed, c.c.	.....	.....	....	11150
Typhoid Vaccine Distributed, c. c.	.....	.....	....	2410
Silver Nitrate Ampules Distributed	.....	.....	....	15724
Examinations Made by Houghton Laboratory	.....	.....	....	1023

Official Minutes of the 106th Annual Meeting Michigan State Medical Society, September 14-15-16th, 1926, Lansing, Michigan

MINUTES OF THE COUNCIL

The first session of the Council of the Michigan State Medical Society was called to order at the Olds Hotel, Lansing, September 14, 1926 at 9:00 A. M. with Chairman Jackson presiding and the following Councillors present:

J. H. Charters, R. C. Stone, J. D. Bruce, O. L. Ricker, A. J. MacKenzie, B. R. Corbus, B. H. Van Leuven, J. Powers, R. Burke, Geo. L. LeFevre, Secretary-Editor F. C. Warnshuis, Executive Secretary Harvey George Smith, Ex-Presidents A. P. Biddle and C. C. Clancy.

The Council reviewed its Annual Report to the House of Delegates and upon motion of Corbus and Charters the report was approved and the Chairman directed to present it before the House of Delegates. (See Minutes of the House of Delegates for copy of report).

The following Resolution was presented and adopted. Resolution on the death of Doctor C. T. Southworth:

Whereas, The tragic and untimely death of Dr. C. T. Southworth of Monroe has removed from our midst, a fellow member and co-worker and former member of the Council, therefore

Be It Resolved, that we, the Council of the Michigan State Medical Society, do hereby inscribe in our records, this tribute and acknowledgment of Dr. Southworth's contribution to fellowmen and the medical profession. A man possessed of an endearing personality, a friend of fellow workers, a physician of ability and conscientiousness, a citizen of integrity, Dr. Southworth commanded our respect and held our esteem. Willing to aid to his uttermost, ever extending the helping hand, contributing unstintedly of his time and energy, he exercised a constructive influence to our organizational progress thereby making possible the attainments our society reflects. Dr. Southworth exemplified these and similar qualities during the 40 years of his professional life and evidenced the spirit that characterizes the life of noble physicians.

Be It Further Resolved, That the sincere sympathy of the Society be extended to his son, and our fellow member, Dr. Varnum Southworth, assuring him that we mourn with him by reason of the loss of so noble a father, while biding him to receive comfort and peace in the memories that must be his of a loving father.

Adopted and inscribed upon our minutes this sixteenth day of September, 1926.

J. B. Jackson, Chairman,
F. C. Warnshuis, Secretary,
C. G. Darling, President.

The Secretary-Editor presented the following invitation from the Grand Hotel, Mackinac Island:

"Council of Michigan State Medical Society,
Dr. F. C. Warnshuis,
Grand Rapids, Michigan.

Gentlemen—This is an invitation from the Grand, Mackinac Island, Michigan, requesting the honor of entertaining the Michigan State Medical Society in 1927.

In taking care of your Association, we propose turning over to you the entire hotel. The following meeting rooms would be available for your party:

Convention Hall, capacity	1,000
Ball Room, capacity	700
Grill, capacity	500
Club House, capacity	500
Tea Garden, capacity	Unlimited

Private Dining Rooms and other smaller committee rooms with capacity ranging 50 to 200.

It is important to note that the above facilities would serve splendidly for the sectional meetings, of which I understand you have many. Again, all facilities are under the same roof or on same premises, thereby assuring immediate contact with all the members all the time. This is the ideal arrangement for accomplishing the work necessary to be carried out at convention time.

Possessing these facilities to take care of you, we are not without entertainment. We have our Palm Beach rolling chairs, two golf courses, large outdoor swimming pool (filled daily with heated water) tennis courts, hotel speedboats, carriages, saddle horses, fishing, dancing, hotel theatre and every facility for your comfort and pleasure. Then there are the scenic and historical points of interest—Arch Rock, Sugar Loaf, Skull Cave, Fort Holmes, Lover's Leap, Devil's Kitchen, Pontiac's Lookout, Wishing Spring, British Landing, Chimney Rock, Battlefield of 1812, Museum at Old Fort Mackinac, etc. I am sure I could work out a very attractive program that would have a strong appeal to your members as well as the ladies accompanying them.

An ideal time for you to be with us would be June 14th to June 17th inclusive. A special boat from Detroit also from Chicago could undoubtedly be arranged. The idea of an outing or a large house party would have a strong appeal to your members—thus assuring a splendid attendance. Or, special trains leaving Detroit and Chicago the night before, bring you to Mackinac in the following morning.

Best of all, we would name a special rate of $9 and $10 a day per person, American plan. There are 11 other hotels close-by, with rates varying from $3 a day to $8 a day, American plan, for those who would not want to stay at convention headquarters.

We would compliment the use of the convention hall, ball room, grill, tea garden, and all rooms necessary for committee rooms—the use of our hotel orchestra of 10 pieces would be without charge—(five hours on week-days, three hours on Sunday) the regular rate of $2 a day for Green fees on our golf course would be cut to $1 a day—there would be no charge of the swimming pool, tennis courts. In addition, we would serve, without extra charge, in lieu of the regular American plan evening meal, a banquet with special printed menu, one of the evenings you are

with us—but persons attending the banquet who are not registered guests of this hotel would be charged $3 per plate.

I want to begin early to plan an elaborate program for your entertainment, in the event you are to be with us. I know we can assure you an unusually successful meeting and hope to hear soon you have decided to be with us in 1927.

Cordially yours,
W. S. Woodfill,
Manager."

Upon motion of Charters and MacKenzie, the Chairman was directed to present this to the House of Delegates with the request that the House of Delegates voice an expression as to the desirablility of our holding our Annual Meeting at Mackinac Island.

The Secretary-Editor also presented a communication from the Chairman of the Bureau on Legal Medicine and Legislation of the American Medical Association relative to the National legislation now pending before Congress. On motion of Councilors Ricker and Stone this was referred to the House of Delegates for action.

The session adjourned to attend the meeting of the House of Delegates.

THE SECOND SESSION OF THE COUNCIL

The second session of the Council was held at 12 o'clock on September 14, 1926 in the Olds hotel. It was called to order by Chairman Jackson, with all the Councilors present.

Upon motion of Councilors Ricker and Stone, the American Medical Association plan of Red Cross Relief was adopted with the following change:

"That the Secretaries of County Societies together with the presidents of County Societies should serve as the heads of County Organizations."

Upon motion of Stone and LeFevre, the Executive Committee was empowered to make the necessary arrangements with the Medical Department of the Univxersity of Michigan for the hodling of a Post-Graduate Course of three days duration during the latter part of October or the first part of November.

Upon motion of Corbus and Burke, the Secretary and the Executive Committee were requested to suggest to the State Board of Registration in person that it adopt the necessary rules so that licenses to practice in Michigan will not be given to itinerant practitioners or those who are spending a few months in our resort regions.

Dr. Tibbals, Chairman of the Medico Legal Committee presented an extensive report of the activities of his committee and the work entailed. A number of questions were asked by various Councillors. A discussion of the policy in regard to doctors who testify for mal-practice cases was delegated to the Medical Legal Committee.

Upon motion of Randall and Burke, the Secretary was directed to arrange for a conference between the different state organizations dealing with Medical Health and Educational matters, to be held in Ann Arbor at the time of the meeting of the Council.

Upon motion of LeFevre and Randall, the January meeting of the Council is to be held in Ann Arbor at such date as may be selected by the Chairman of the Executive Committee.

Upon motion of Randall and Baird, the sum of Two Thousand Dollars was appropriated for the purpose of undertaking additional activities for the protection of the Public Health of the People of Michigan.

THE THIRD SESSION OF THE COUNCIL

The third session of the Council was held at 6:00 P. M. on September 14, 1926, with all the Councillors present.

The following Honorary Members were nominated to the House of Delegates:

Green nominated; F. A. Jones, Lansing; R. E. Miller, Lansing.

Charters nominated; Eugene Smith, Detroit; J. E. Clark, Detroit.

MacKenzie nominated; C. B. Stockwell, Port Huron; George S. Ney, Port Huron.

Burke nominated; T. A. Felch, Ishpeming.

The Council discussed the problem of redistricting the Councillor districts of the state. The following was the only action deemed advisable—that Livingston County be transferred from the 6th District to the 14th District. Upon motion of Charters and Bruce this recommendation was made to the House of Delegates.

The Executive Secretary gave an extended report to the Council of his activities and plans for the Fall and upon motion of MacKenzie and Bruce these plans were approved and the Executive Committee empowered to supervise the details.

THE FOURTH SESSION OF THE COUNCIL

The fourth session of the Council was held on Wednesday noon, Setember 15, 1926, at 12 o'clock with all the Councillors present.

Upon motion of Councillor Bruce, supported by Councillor Charters, the Chairman of the Council was authorized to subscribe up to $250.00 as the State Society's contribution to the expense account of our Joint Committee on Public Health Education.

Upon motion of Councillors Randall and Corbus, Mackinac Island was designated as the place for holding our 1927 Annual Meeting. The Secretary and the Executive Committee were authorized to make the most satisfactory arrangements possible as to dates and to submit their report at the January session of the Council.

Upon motion of Charters and LeFevre,

Dr. R. C. Stone was elected Chairman of the Council.

Upon motion of LeFevre and Powers, the Secretary was instructed to cast the ballot for Stone as Chairman for the ensuing year and the Chairman declared his election.

Upon motion of Ricker and Mackenzie Dr. B. R. Corbus was nominated as Vice-Chairman and the Council and the Secretary instructed to cast the ballot upon which the Chairman declared Dr. Corbus' election.

Upon motion of Baird and Charters, the Secretary was instructed to convey to the Ingham County Medical Society a letter of thanks and appreciation for the splendid provisions that had been made for our Annual Meeting, and for the effort that was being contributed by the Ingham County members to enhance the success of this meeting. On the same motion the Secretary was also instructed to enroll in our records appreciation of the services rendered by Dr. Davey, of Lansing, deceased, and to transmit a copy of same to his family.

Councillor Powers desired to enter upon our records the invitation extended by him in behalf of the Saginaw County Medical Society for the Michigan State Medical Society to hold its Annual Meeting in 1928 in Saginaw.

THE FIFTH SESSION OF THE COUNCIL

The fifth session of the Council was called to order at noon on September 16 by Chairman Stone and all the Councillors were present, and also Ex-Councillor Haughey, Ex-President Burr, Ex-President Kay, and newly elected Councillors C. E. Boys and Henry Cook.

Chairman Stone announced the following appointments for the Council committees:

Publication—Chairman, J. D. Bruce, B. F. Green, B. H. Van Leuven.

Finance—Chairman, Geo. L. LeFevre, A. J. MacKenzie, J. H. Charters.

County Societies—Chairman, B. R. Corbus, C. E. Boys, O. L. Ricker.

Upon motion of LeFevre and Charters the minutes of the Executive Committee meetings were approved and made part of the records of the Council.

Upon motion of Boys and Powers, the Executive Committee was directed to arrange for a legislative meeting in connection with the Ingham County Medical Society regular meeting. Upon the recommendation of President Jackson a tentative outline for our legislative program was discussed and referred to the Executive Committee.

Upon request of the Chairman of the Council, the Secretary outlined some of the duties that Councillors should perform in connection with the various projects that are now in effect pertaining to the activities of our County organizations. The Secretary also utilized the opportunity for expressing to the members of the Council his appreciation for the confidence expressed by the Council in him and manifested by the diamond ring that had been presented to him during the year.

There being no further business the Council adjourned. F. C. Warnshuis, Secrettary.

HOUSE OF DELEGATES

TUESDAY MORNING, SEPTEMBER 14, 1926

The 106th Annual Session of the House of Delegates of the Michigan State Medical Society was called to order in the Ball Room of Hotel Olds, Lansing, Mich., on September 14, 1926, at 10:30 o'clock, the Speaker, Dr. J. E. King, of Detroit, presiding.

Dr. J. H. Dempster, Chairman of the Committee on Credentials, reported that they held the credentials of 51 accredited delegates and he commended that this preliminary report of the Credentials Committee be accepted and these delegates be seated.

Upon motion of Dr. Biddle, of Wayne, supported by Dr. Hirschman, of Wayne, and carried, the preliminary report of the Credentials Committee was adopted.

The Secretary reported that he held in his hand the signed roll call of 53 accredited delegates and on motion of several members, the signed roll call was ordered to constitute the roll call of the House for the first session.

Speaker J. E. King stated that he had no Speaker's address to deliver to the House, and introduced the President of the Society, Dr. C. G. Darling, of Ann Arbor, who addressed the delegates upon pertinent matters pertaining to the activities of the House of Delegates and the individual delegate as a representative of the membership of the constituent component societies of our state organization.

The reports of the Council was submitted to the House by Dr. J. B. Jackson, Chairman of the Council. This report was referred to the Business Committee.

1926 ANNUAL REPORT OF THE COUNCIL

Members of the House of Delegates:

The Council, through you, submits the following annual report to our membership.

MEMBERSHIP

On January 1st, 1926, our paid membership was 3,013. The present status of the Membership is as follows—2,942 paid members and nine honorary members making a total of 2,951. At this same time one year ago our total membership was 2,860. This is a gratifying condition for it will be re-

membered that 1925 was the first year of increased dues. The Council interprets that our members are willing to accept the increase of dues providing tangible benefits and returns are evidenced. Your Council has endeavored to attain such results in directing the activities of the Society.

FINANCE

The following is a statement of the assets of the Society as of September 1st, 1926:

MICHIGAN STATE MEDICAL SOCIETY
TRIAL BALANCE AUGUST 31, 1926

	Debits	Credits
Old National Bank and G. R. National	$ 4,742.33	
Accounts Receivable	1,196.63	
Advertising Sales		$ 5,021.37
Bond Account—Society	17,000.00	
Allowance for Reduction Bonds to Cost		353.34
Medico—Legal Defense		804.41
Medico—Legal Defense—Bond Account	9,500.00	
Medico—Legal Defense—Reserve		9,500.00
Present Worth		10,206.12
Journal Subscriptions		7.485.70
Membership Dues		16,313.55
Council Expense	338.69	
Reprint Sales		1,064.49
Reprint Expense	791.06	
Journal Expense	7,674.85	
Interest Account		668.14
Professional Announcements		237.50
Delegates to American Medical Ass'n.	380.87	
Annual Meeting	30.96	
Post Graduate Medical Conferences	1,803.39	
Executive Secretary	3,664.00	
Stenographer	912.50	
Office Rental and Phone	346.16	
Postage and Printing	206.00	
Editor's Salary	2,000.00	
Society Expense	1,067.18	
	$51,654.62	$51,654.62

ENDOWMENT FUNDS

The Council has investigated whether it is possible to receive bequests and endowments for funds from which the proceeds will be employed for the furtherance of Post Graduate work. We are advised by competent legal authority that our Articles of Incorporation will not permit us to create such a fund in the name of the State Medical Society. The Society, however, can arrange a Trustee Group, of three or five members, and this Trusteeship may receive such funds and appropriate proceeds from this fund to the work of furthering Medical Education in Michigan.

The Council is imparting this information for two reasons—First, that it has confidential information that such bequests have been incorporated in the wills of some of our members. Second, the reason for imparting this is, possibly others of our members may be inclined to make such provision in their wills.

For your information, the following proceedure is pursued in the supervision of our Funds. At the Annual Meeting of the Council a Budget is made up for the ensuing year. All disbursements are made to conform to this Budget. Bills are audited and payments made by voucher signed by the Chairman of the Council, Secretary and Treasurer. Annually our books are audited by a firm of bonded, certified accountants. Complete control and information are therefore always at our command. The Council is not of the opinion that our Society should hold a large reserve fund. Our dues are sufficient to maintain a reasonable reserve, and will enable the Council to undertake new and additional work for the benefit and protection of our members. In addition to our present activities plans are in the formation for establishing post graduate courses at the University's extension for our District Conferences, newspaper campaign of Public Education, Co-operation with the Board of Registration for the better enforcement of our Medical laws, the exposure of quacks, legislative activity, as also material aid to County Societies in promoting the value of their meetings. These increased activities require funds, time and personal effort. The Council and its Finance Committee are ever mindful that our funds shall yield the fullest returns for every expenditure made, and that these returns shall ever be to the benefit of the individual member.

POST GRADUATE CONFERENCES

During the year—October 1925 to October 1926, 19 conferences were conducted as follows:

City	Date	District
Cadillac	October 15th	9
Ironwood	October 22th	12
Grand Rapids	October 28th	5
Pontiac	November 5th	1
Saginaw	November 11th	8
Port Huron	November 12th	7
Flint	December 9th	6
Battle Creek	December 16th	3
Bay City	January 26th	10
Adrian	March 9th	14
Kalamazoo	March 16th	4
Alpena	May 6th	13
Jackson	May 25th	2
Fremont	June 2nd	11
Cheboygan	June 9th	13
Escanaba	July 27th	12
Marquette	July 28th	12
Houghton	July 29th	12
Ironwood	July 30th	12

They have all been reported in The Journal. Comment as to their value need not be made at this time as our members individually and collectively have recorded their approval. The purpose is to still further enhance the value of this type of work and to make them of greater usefulness and help to our members. Plans for the University Post-Graduate Courses will be announced in The Journal as arrangements are perfected by the University which is active in advancing this progressive educational movement.

EXECUTIVE COMMITTEE

At the beginning of 1925, the Council created an Executive Committee composed of five members. This Committee has met monthly thereby enabling the Secretary to take up plans and policies and obtain therefor the judgment

and advice of the Council at monthly intervals. This plan represents anew your Council's recognition of the responsibility imposed in it and the discharge of that trust.

ANNUAL MEETING

By your action the Council is intrusted with providing the plans for your Annual session and supervising their administration. Mindful of the experiences of past years and especially last year, and also because of the expense involved, the commercial exhibits have been discontinued. It is hoped that in time they can be supplanted by scientific exhibits.

Our present program of combined and sectional meetings is the result of the expression voiced by a mail vote of our members.

HONORARY MEMBERS

Under the provision of our By-Laws the following are recommended for election as Honorary Members:

J. A. Mabbs, Ottawa County; Ralph Spencer, Kent County; D. Emmett Welsh, Kent County; Stoddard, Muskegon County; Paul A. Quick, Muskegon County; J. T. Cramer, Muskegon County; David Ralston, Wexford County.

SECRETARY'S OFFICE

For your information the following work is being undertaken in the Secretary's office, and will be imparted in due course in The Journal:

(a) Survey of population and Doctors in Michigan.

(b) Survey of cult practitioners in Michigan.

(c) Survey of family dependency for medical care, ability to employ, ability to pay and average annual medical cost as well as average medical charge.

(d) Compilation of Public Educational meetings.

As our scope of endeavor broadens there results a tremendous increase in office correspondence consuming several hours daily. This is mentioned solely to convey that our members and County officers should continue to feel free to apply at all times for information and the assistance available.

The field work of our Executive Secretary is reflected each month in The Journal. The Council desires to record its appreciation for the services being rendered by Mr. Smith. Mr. Smith is ever available to aid County Societies and it is recommended that he be called to come and assist you in your local problems.

ANNUAL MEETING

There is appended hereto possible features for our 1927 meeting at Mackinac Island. They are submitted for your consideration as to whether such location shall be selected for our 1927 meeting. The Council recommends that a bronze tablet be placed upon the monument erected in honor of Dr. Beaumont at Mackinac Island. This tablet to replace the inscription that was on this monument and which has become defaced.

COURSE OF LABORATORY TECHNICIANS

By representatives of our Society meeting in conference with the President and faculty of the Michigan State College a course for laboratory workers has been arranged. Members are urged to recommend students for this course.

JOINT COMMITTEE ON PUBLIC HEALTH EDUCATION

The Council desires again to direct attention to the achievements of this committee and to commend every support to its activities. Through this agency the public are receiving reliable health education and facts regarding medicine and health conservation. Each County Society should sponsor a series of such meetings each year. Our thanks are due to the organizations represented on the Joint Committee for their co-operation and support.

MINIMUM PROGRAM

As the result of the Annual Conference of County Secretaries a Minimum Program of County Society activity was formulated. This has been adopted by 29 County Societies. The House of Delegates is urged to take action whereby such a program shall become an established precedent for County Society work.

PERIODIC PHYSICAL EXAMINATION

Responding to the request of the American medical Association, a campaign of education on the subject of Periodic Physical Examinations was conducted. Speakers were arranged for County Meetings and a Manual that served as a guide was distributed to every member at a cost of some $385.00.

MEDICAL CONFERENCE

At the suggestion of President Darling a conference of representatives of our Medical Colleges, Board of Registration, and Board of Health was held in Ann Arbor in January. This conference resulted in a better understanding of our medical problems and is paving the way for extended concerted action. A second conference is planned to be held in January.

MEDICAL DEFENSE

By refering to the minutes of the Council, the work of our Medico-Legal Committee will be imparted. The Council commends to the House of Delegates the work of this Committee. Especially do we pay tribute to the Chairman, Dr. Tibbals, for the administration and wise direction of the work.

THE JOURNAL

The Journal is your official organ. Its columns are open to all members for scientific discussion and the presentation of personal opinions and views that are void of individual attack. The Journal is also the historical archieve of our Society, its units and personnel. Delegates are advised to enlist greater interest and a widened contribution to its pages.

SUGGESTED TUBERCULOSIS PROGRAM

While tuberculosis still remains a great part of the health problem which confronts us, general opinion says that there has been a steady decline in the death rate from this disease in the last twenty years. Another widely spread opinion is that this death rate has been reduced by education. Accepting these two facts as being true, sanatoria should partake rather of the form of schools than hospitals. The tuberculosis patient enters such a school to receive instruction concerning the care of himself and the protection of others. That is the essential point in the use of the sanatoria. Persons may receive various degrees of graduation from the school. Some individuals properly instructed may go back and take their place in the world and enjoy life and the pursuit of happiness. The other extreme will include those who are far advanced and little must be expected of them until they have been a long time under observation and instruction.

Tuberculosis should be just a part of the health program—a part of health education. Our health program begins with the expectant mother, and under proper direction should continue until the child becomes of school age. Every school should be a health center where, starting with the kindergarten, the child is taught the beginning of infections and infectious diseases, including tuberculosis. If this work is properly carried out along these lines, in twenty years there will be one state in the union whose dwellers will be acquainted with good health. It has become a well-established fact that most infections from the tubercle bacillus begin in infancy and childhood, and many of these show as glandular infections. By employing the suggested method of investigation, early diagnosis will be the rule instead of an exception. It will be a grand way of developing the mind of the people respecting medical science. The laws concerning the building and operating of sanatoria may not be perfect, but nevertheless, they are workable laws. With the machinery all ready set, much depends upon how we use it.

There are portions of the state where intensive education should be carried on with the people until a sanatorium is built. In other places because of poverty or lack of education, other methods should be pursued until the combination of purse and intelligence will be available for a sanatorium. It must not be forgotten that we are expecting all the time to lower our death rate and we may find less and less need for the machinery which we are putting in motion. We believe that the Department of Health, with the aid and council that the medical profession should give, will be able to work this out thoroughly. All of this will mean advanced education of physicians and lay associates along certain lines for early diagnosis and the promotion of health.

This proposition may be met by advising the establishment at the University of Michigan of a proper course for health officers and others connected with the health program, the expenses of which may be defrayed by the State Board of Health, or the State Medical Society. This plan should be developed by the Health Commissioner and some department of the University, and the Health Office may furnish some of the lectures of this course. This could be made a very popular program.

Dr. C. G. Darling.

AMENDMENTS

There are laying on your official table, two amendments to the Constitution and By-Laws which concern the election of the Secretary, Chairman of the Medico-Legal Committee and the Treasurer. The Council feels it incumbent, by reason of its intimate contact with the Society's affairs, to voice opinion thereon. Without entering into any extended discussion, it is the Council's recommnedation that these amendments be not adopted. The history of our Society clearly evidences that executive direction vested in the Council is wise and salutory. Inasmuch as the Council is elected by the House and subject to its mandates it is but reasonable to assume that the Council will faithfully discharge the trust vested in it. To do so it must have choice and control of the Executive officers, for these officials work out policies and plans of the Council. Therefore if you have confidence in the Council, and invest it with authority, that same confidence should be manifested in permitting it to elect its executive officers.

CONCLUSIONS

The foregoing report constitutes merely a citation of the Council's supervision of the Society's activity. Extended details have been purposely omitted for the reason that from month to month details are imparted in The Journal.

Your Council recommends that favorable action be recorded by the House of Delegates on the following projects:

1. Recommending that each County Society subscribe for from five to one hundred copies

of Hygeia to be placed in public reading rooms, schools and factories.

2. That each County Society adopt and carry out the Minimum Program for County meetings.

3. That the Council be authorized to join with the State Board of Registration for the enforcement of our State Medical laws.

4. That the Council be authorized to perfect a State Red Cross Disaster Relief organization in conformity tto the recommendations of the American Medical Association.

5. That the Council be authorized to institute plans that will lead to the establishment of a Post Graduate School at our University wherein our members will be accorded opportunity for continued study.

6. That the Council be authorized to organize a Woman's Auxiliary as endorsed by the American Medical Association and active in a goodly number of our sister states.

Respectfully submitted,

J. B. Jackson, Chairman.

The Chairman of the Council also referred to the House a resolution upon the death of Dr. C. T. Southworth, a former Councillor and co-member. This likewise was referred to the Business Committee of the House.

Speaker J. E. King appointed the following Business Committee:

Dr. Fred H. Cole, of Wayne, Chairman.
Dr. A. V. Wenger, of Kent.
Dr. Sam Osborn, of Ingham.
Dr. Frank Mercer, of Oakland.
Dr. W. E. Collins, of Kalamazoo.

Upon motion of Dr. Biddle, of Wayne, supported by Dr. Gardner, of Wayne, the Speaker was authorized to appoint a special committee to consider matters of national legislation which have been referred to the State Society by the Bureau of Legislation of the A. M. A.

The Speaker appointed:

Dr. J. D. Brook, of Kent.
Dr. A. P. Biddle, of Wayne.
Dr. C. C. Clancy, of St. Clair,

members of this special committee and referred to that committee for special consideration the communication from the Bureau on Legal Medicine and Legislation of the A.M.A.

Nominations for members of the Nominating Committee of the House were made from the floor and consisted of the following:

Dr. Harry F. Dibble, of Wayne.
Dr. A. V. Wenger, of Kent.
Dr. G. C. Hafford, of Calhoun.
Dr. Frank Mercer, of Oakland.
Dr. James D. Bruce, of Washtenaw.
Dr. A. W. Hornbogen, of Marquette.
Dr. L. J. Crum, of Kalamazoo.
Dr. R. H. Nichols, of Ottawa.
Dr. E. H. Webster, of Chippewa.

The Speaker appointed three tellers, consisting of the following:

Dr. William J. Cassidy, of Wayne.
Dr. J. J. Hirschman, of Wayne.
Dr. R. L. Clark, of Wayne.

The ballots were spread and the result announced by the Secretary.

Secretary: Mr. Speaker, the following is the result of your ballot for election of members of the Nominating Committee:

The highest number of votes was received by Dr. Dibble, 45; Dr. Krum is second, with 45 votes; Dr. Bruce third with 43 votes; Dr. Hafford fourth with 31 votes, and Dr. Webster fifth with 29 votes.

The other votes were: Dr. Wenger, 26; Dr. Mercer, 7; Dr. Hornbogen, 13, and Dr. Nichols, 25.

Dr. A. W. Hornbogen (Marquette): Mr. Speaker, I wish to state that I didn't want to be on your committee. I have been on it a great many years. Now if Dr. Webster does not appear before you, the upper Michigan peninsula will not be represented by any man on that committee. So I wish you would take this into consideration.

I move you that either Dr. W. H. Ellis, of Hancock, or Dr. W. L. Tuohy, of Bessmer, be voted upon as a substitute to act in Webster's place if he doesn't appear here for your subsequent sessions.

Dr. J. Albert Kimzey (Wayne): Mr. Speaker, it seems to me it is manifestly fair that this meeting here today, this representation, should vote for a man from the upper peninsula. The way it is now the upper peninsula is not represented. It seems to me that they certainly have a vote coming to them.

Dr. H. J. Hirschman (Wayne): Mr. Speaker, I was born in the upper peninsula and have the warmest feeling for the upper peninsula and for its products, but this whole question is absolutely out of order. A man from the upper peninsula was nominated and elected on the committee. If the representative from the upper peninsula has failed through probably no fault of his own to be present, that is not the concern of the House. Nominations have been made by the House, the vote has been cast and the result has been announced and all this discussion is absolutely out of order.

Speaker King: The next order of business is reports of the standing committees.

Secretary: Mr. Speaker, I would like to call to the attention of the members of the House the fact that reports of our standing committees are published in the program which was given to you at the time of registration, and are so imparted to the delegates. There is only one report that the House has not received and that is from its delegates to the American Medical Association. The suggestion I would like to make to the House is that these reports be referred to your Business Committee, unless the chairmen of these committees have some particular points to bring out about their reports, and that you also receive now the report of your delegates to the American Medical Association.

Dr. Walter J. Wilson (Wayne): I move these reports be referred to the Committee.

Dr. Andrew P. Biddle (Wayne): Mr. Chairman, as Chairman of one of the committees who desires to make an expression, if it is the wish of the House to refer these reports to the Committee without further comment, may I speak at this time? If it isn't the desire of the House to do that, I am perfectly willing to submit the report without this emphasis.

Speaker King: Would you care to make a motion to that effect?

Dr. Biddle: It would be up to the Speaker to decide.

Speaker King: Dr. Biddle, we have no desire to choke anything and we will be very glad to listen to what you have to say in regard to your report.

Dr. Biddle: I want to lay emphasis on it, I think it is serious enough to do so. We are fortunate enough to have on this committee a representative of the medical departmnt of the Unversity of Michigan and also the Dean of Detroit College of Medicine and Surgery.

The question of medical education throughout the United States is getting so serious and it has been so emphasized and so much in demand that these different colleges don't know how far to go; they don't know whether they are doing too much work at the different schools. This report has a constructive suggestion, and with your permission I will read simply the last few paragraphs which embody the substance of the report.

....Dr. Biddle read that portion of the report of the Committee on Medical Education on page 39 of the official program.... (See September Journal).

Dr. Biddle: I would suggest, Mr. Speaker, that attention be directed especially to that part of the report of the Committee on Medical Education.

Speaker King: It will be referred to the Business Committee.

We would like to hear now from the Chairman of the Delegates to the House of Delegates of the A. M. A.

....Dr. J. D. Brook read the report of the Delegates to the A. M. A.....

REPORT OF DELEGATES TO A. M. A.

Members of the House of Delegates,
Michigan State Medical Society.

The seventy-seventh annual meeting of the American Medical Association was held at Dallas, Texas, April 19-23, 1926.

The House of Delegates convened at 10:00 A. M. April 19, in roof garden of the Baker hotel, with Speaker F. C. Warnshuis presiding.

There was no outstanding issue to command the attention of the delegates, but the following subjects are a few of the more important and interesting topics upon which action was taken.

1. Resolution introduced by Dr. Southgate Leigh, Virginia, requesting the Council to consider the feasibility of allowing medical students to graduate at an earlier age, and allowing them credit for courses taken during the summer months, was adopted.

2. Resolution introduced by Dr. E. Elliot Harris of New York recommending the appointment by the Board of Trustees of a special committee on nurses and nursing education to investigate and report to the 1927 House of Delegates was unanimously adopted.

3. Resolution introduced by Dr. A. D. Dunn, Nebraska, as follows was unanimously adopted:

Inasmuch as contract practice is absorbing an ever increasing portion of general medical practice on account of the rapid development of business and industry and inasmuch as brokers under the guise of health, accident, and sickness insurance in which they purport as middlemen to sell medical service to the laity or entering the field of medical practice, be it
Resolved that:

(a) The whole matter of contract practice be investigated under the directions of the Judicial Council.

(b) Recommendations as to the policy of the American Medical Association toward contract practice, its functions, limitations, and control be submitted to the House of Delegates for action at its annual session in 1927.

(c) The trend and dangers to patient and profession inherent in this movement be analyzed and clearly set forth.

(d) Systematic effort be made to get clearly before the constituent societies the results of this investigation and whatever action the house of delegates may take in the matter.

4. The report of the Board of Trustees contains a rather lengthy recommendation in regard to medical relief in disaster, a synopsis of which is as follows:

The reason for suggesting this is the confusion and often breakdown that occurs immediately after any large disaster before the established state and national organizations which properly take charge of such situations arrive on the scene.

The function of this organization is primarily to furnish immediate medical relief in the interval before the usual organizations arrive.

It is suggested to be effective only in case of unusual disaster such as distructon and suffering produced by cyclones, tornadoes or floods.

The plan has in mind disasters of such magnitude which break down the ordinary machinery for giving relief.

It is expected that this organization shall co-operate both before and after their arrival with state and federal organizations and with the Red Cross.

The plan then would be that the American Medical Association would direct relief through the County Medical Society, its president assuming the role of director or generalissimo, he having the privilege of calling to his assistance such of his colleagues as he may deem necessary, they to function under his supervision.

The state director of disaster relief would be the president of the State Society.

The national director of disaster relief would be some one at national headquarters such as the secretary of the Association who should act with the aid and advice of the President of the Association. Upon recommendation of the committee on reports of officers the report of the Board of Trustees on medical relief in disaster was unanimously adopted.

Resolution introduced by Dr. George E. Fallansbee, Ohio deploring the present court proceedure in presenting expert opinion evidence in both civil and criminal cases, and recommending that it favors the use of experts appointed by the court as a corrective to present abuse; that it believes the expert opinion witness should be allowed to present and read a written opinion based on examination and not on a hypothetic question; that fees due expert opinion witnesses appointed by the court should be fixed by the court, and taxed as part of the cost in the case, was after considerable discussion unanimously adopted.

We commend to you for your perusal the complete minutes of the House of Delegates as found in the April 24th and May 1st editions of the Journal of the American Medical Association.

The medical profession of Dallas exhibited the usual

southern hospitality, a feature of which was the feeding of about 6,000 persons at a huge barbecue at which 16 prime Texas steers were the victims.

Your delegates were present and active at all the sessions of the House.

The following officers were elected by the House of Delegates:

President—Dr. Jabez N. Jackson, Missouri.
Vice President—Dr. John O. McReynolds, Texas.
Secretary—Dr. Olin West, Illinois.
Treasurer—Dr. Austin A. Hayden, Illinois.
Speaker—Dr. F. C. Warnshuis, Michigan.
Vice Speaker—Dr. Allen H. Bunce, Georgia.

Member Board of Trustees—Dr. Charles W. Richardson, District of Columbia; Dr. Joseph A. Pettit, Oregon; Dr. J. H. J. Upham, Ohio; Dr. Rock Sleyster, Wisconsin.

Washington, D. C., was selected as the place for holding the 1927 meeting.

All of which is respectfully submitted.

Carl F. Moll,
C. S. Gorsline,
A. W. Hornbogen,
Geo. E. Frothingham,
J. D. Brook.

Speaker King: This report is referred to the Business Committee.

UNFINISHED BUSINESS

Under unfinished business we have amendments to Constitution lying over under the rules.

Dr. Hugh Stewart, of Flint, offered the following amendment to Section 2, Article VII, of the Constitution: "That the Secretary-Editor shall be elected by the House of Delegates at each annual meeting." This amendment under the rules was to lie over until the next annual lesson.

What is your pleasure in regard to this amendment?

Dr. Biddle: Mr. Speaker and Members of the House of Delegates: I want to speak to you as seriously as it is possible for me to speak. I want to speak to you on account of the many honors which you have conferred upon me, that is to say in one capacity or another I have had the privilege of serving you for 25 years. The House elects the different members of the Council, it gives to those members the highest possible privileges, but with that it fails in its highest possible responsibilities. It is a very serious matter that the Council should have an executive officer, a man of its own choosing. I want to say to you in all seriousness from the long experience I have had. I believe the working of that Council and the benefits to this Society depend upon the active co-operation and the close connection between the Council and its executive officer. Therefore, I plead of you that you will not amend this article. What have we done in the last 25 years better than any state in the union, and to whom do we owe that? We owe it to the Council; we owe it to men of the Council. I have nothing but the good of my Society, which I love, at heart; I really believe that it is best to leave the choice of the executive officer, who should not be a year to year man, but some one who has vision and can carry out the instructions, in this House of Delegates. Therefore, with that I plead of you that this amendment be defeated. (Applause).

Speaker King: Is there any further discussion?

Dr. R. L. Clark (Wayne): I move it be permanently laid on the table.

.... The motion was supported by Dr. Dibble, of Wayne, and carried....

Speaker King: The next amendment is by Dr. J. D. Brook, of Grandville, the Chairman of the Committee to revise the Constitution. Article V, House of Delegates, Section 1, shall be changed to read, "The legislative powers of this Society shall reside in the House of Delegates. The House of Delegates shall transact all the business of the Society not otherwise specifically provided for in the Constitution and By-Laws, and shall elect the general officers who shall hold office for one year."

Is there any discussion?

Dr. Biddle: What does that mean? The gentleman back of me thinks that has to do with the election of the president of the Society.

Secretary: The original provision reads as follows: "The legisative power shall reside in the House of Delegates. The House of Delegates shall transact all the business of the Society not otherwise specifically provided for in this Constitution and By-Laws and shall elect the general officers except the President."

The amendment is "The legislative powers of this Society shall reside in the House of Delegates. The House of Delegates shall transact all the business of the Society not otherwise specifically provided for in the Constitution and By-Laws and shall elect general officers who shall hold office for one year."

Dr. Biddle: What do they say beneath that, doctor? They say that the president shall be elected in the general session.

Secretary: Article VII, Section 2, says the President and Vice-President shall be elected for a term of one year.

Dr. Biddle: What does it say further?

Speaker King: "Article VII, Officers, Section 4; Nominations for President shall be made from the floor at the first general meeting. He shall be elected by ballot of the majority present. The ballot boxes shall be kept open during meeting hours between the first and second general session."

Dr. Biddle: That isn't a general meeting.

Dr. Hornbogen: Mr. Speaker, I think Dr. Biddle misunderstands the office of president is filled at the general meeting of the entire Society and the House of Delegates.

Dr. Biddle: I see that, but the man from the upper peninsula says no. He is wrong.

Dr. Hirschman: I maintain there is a conflict in the two paragraphs. The amendment specifically leaves out the words "except the President." while in the Constitution they are there. I can read it either way. If it means all general officers, it includes the president in the amendment as offered; if it expected the president, it would say so. It carefully omits that paragraph.

Speaker King: It would seem to me from reading Article VII, Section 4, that nominations for President shall be made from the floor of the first general meeting. That does not mean the House of Delegates. "He shall be elected by ballot of the majority present. The ballot boxes shall be kept open during meeting hours between the first and second general session." It seems to me they conflict, as I see it.

Dr. Clark: Mr. Speaker, in order to be able to bring this before the House so we can do it in a representative way, I move this be permanently laid on the table.

Dr. J. D. Brook (Kent): Mr. Speaker, I think before that motion is made I should be allowed the privilege of the floor, because I brought up this matter a year ago. I don't know how it happened, but got hold of this copy of the Contitution, I don't know whether any of the other members have a copy of it. Somebody gave it to me in Muskegon last year.

During some of the idle moments that I had to peruse this, I thought I found some articles that conflicted. As a matter of fact, I found that they did conflict. I brought in no resolution, but, as those of you will remember who were there, I came before the House and asked for an explanation of these various conflicts. Nobody came forward with any explanation, but instead some one made a motion to have a committee appointed to iron out these conflicts.

A committee of five was appointed and instructed to report at once. We went into an adjoining room, considered these things very hastily, and I was instructed as chairman of that committee to bring in the report which is printed in your handbook today. When I brought this matter before the House, I had absolutely nothing in mind other than to have the Constitution straight and correct so that any one reading it could see what there was in it. There are conflicts in this Constitution. I think it was asking a little too much of that committee last year to ask it to report within a very few moments after going over this as hastily as we did. I don't think that this report really is what it ought to be. Certainly this Constitution should be so fixed that there are no conflicts in it. I hadn't in mind any particular officer or any particular set of officers whom have wanted to oust from the authority of the Council and place in the House of Delegates, that wasn't my object at all.

This Constitution was adopted two years ago at Mt. Clemens, if you will remember. The year previous this House adopted a motion or resolutions that we have a revision of our whole Constitution. A committee was appointed of which Dr. Manwaring was chairman. The committee labored long and hard to revise our old Constitution. When we came to Mt. Clemens, Dr. Manwaring had a report of a revised constitution for submission and adopted by the House of Delegates. The Council came along, Dr. Jackson as Chairman, and stood beside Dr. Manwaring with a lot of amendments to this constitution as presented by Dr. Manwaring, which were substitutions for this revised constitution. As they were read, the House of Delegates adopted them, and in doing so in their haste these inconsistencies came into the Constitution. That is my interpretation of them.

My idea in bringing this matter before the House last year was simply to straighten out the Constitution and I think that if you want to do anything, you should refer this back to a committee, possibly some other committee, and give them a little longer time to straighten this thing out as it ought to be.

Speaker King: Is there any further discussion? Is that in the form of a motion, Dr. Brook?

Dr. Brook: I move you that a special committee be appointed to further go into this Constitution and see if it can be ironed out.

Dr. Biddle: To report next year?

Dr. Brook: No, I think there is time enough to report this year. Let them report at the evening session.

Dr. Frank W. Garber, Sr. (Muskegon): Mr. Chairman, I think we are going to get into the same difficulty again if we attempt to have this reported back this evening. This House of Delegates is asked to pass upon something that a committee has spent some time working out, several hours perhaps, or longer. We are in no condition to pass upon something which the committee themselves have given considerable thought to. I think the thing should be referred to a committee to iron the matter out and copies of the Constitution, with the proposed amendments, should be sent to the members for the coming meeting in order that each member may carefully study the thing and come here prepared to vote on it properly.

Dr. Nathan B. Colvin (Oakland): I believe it is no more than fair for the committee to have more time. If this isn't a legislative body, what is it? I move they be given the time they wish, and if they can report tonight, do so. If they want more time, we can give it.

Speaker King: The Chairman suggests that there isn't any particular haste in determining the various features of this Constitution or amendment to the Constitution, and I believe that the Council would probably have a better opportunity of straightening this thing out than any one particular committee. I simply offer that as a suggestion.

Dr. Colvin: Is the Council a part of the legislative body of this Society?

Speaker King: Yes, sir.

Dr. Colvin: Is it made up of two bodies?

Speaker King: No, it is simply a matter of revising the Constitution if we see fit; it is simply a suggestive matter and not a legal matter.

Dr. Brook: I take exception to the Speaker's remarks. The Constitution provides specifically that the Constitution shall be adopted by the House of Delegates and not by the Council.

Speaker King: I am afraid, Dr. Brook, that you misunderstood what the Speaker had to say: I didn't make any crack that the Council should adopt the Constitution, but simply that the Council should try to revise it and have it adopted by the House of Delegates.

Dr. Brook: Mr. Speaker, may I ask if the Council is any better able to do this, or are they any better constitutionalists than any members of the House of Delegates?

Speaker King: I am sorry, but I would hate to answer the question. (Laughter).

Secretary: Dr. Brook, is your motion now before the House that the Speaker shall appoint a special committee that shall bring in revisions of conflicting articles and paragraphs of the

Constitution and By-Laws and report to the House this evening?

Dr. Brook: Yes, sir.

Dr. H. B. Gardner (Wayne): Mr. Chairman, I support that.

Dr. Brook: Mr. Speaker, the reason I make that motion and say this evening is this: I don't think it is any more unreasonable to adopt a few articles in the Constitution than it is to adopt regularly right off-hand articles presented to this House of Delegates by the Council without having them read once.

.... The motion was carried.....

Speaker King: In view of the fact that the job was so efficiently carried out by the previous committee, I will appoint as Chairman, Dr. Brook; Dr. Biddle is a hard working man, so we will give him a job, and Dr. Hirschman, who is a politician.

Dr. Hirschman: I want to thank the Speaker for representing the upper peninsula.

Dr. Brook: Mr. Speaker, I have never shirked any duty in this House of Delegates, but I don't believe that it is exactly fair to put me on two hard working committees. I understand that you have placed me on this other committee, which is a special committee, and I ask, therefore, to be excused.

Speaker King: All right, Dr. Brook, the excuse is accepted. We will put on Dr. Dibble.

Dr. Dibble: I am not a delegate.

Speaker King: Dr. Moll will be glad to work on that. Dr. Moll is the Chairman of the committee in view of the fact that he takes Dr. Brook's place.

Are there any resolutions to be offered to the House? Any new business?

Secretary: Mr. Speaker, for the information of the members of this House of Delegates, the arrangement for this annual meeting and the sessions of the House of Delegates was provided for by the Council. The Council, after a considerable discussion of the time of holding the various sessions of our annual meeting, thought that it would be highly desirable if the House of Delegates could meet on one day and complete its work during that day, thereby permitting its members to attend the various scientific meetings and sections and not compel them to get up at 7 o'clock in the morning to attend an early meeting of the House of Delegates. I desire to make the explanation that it is the privilege of the House to make its own rules and order of business, and if there are any delegates who desire a session of the House of Delegates, either tomorrow or Thursday, it is their privilege by motion to designate such time.

It is also proper for the House, under the provision of our Constitution and By-Laws under which our election of officers shall come at the last session of the House of Delegates (and it states in there on the last day of the annual meeting), to offer a resolution that the order of business be altered. You have a right to do that so that your election of officers may come this evening.

Then as far as the rest of your program is concerned, the other sessions of the House are at 2 o'clock this afternoon and the final one at 7 o'clock this evening. That should be a part of your official minutes that you have changed the date and hour of election of officers so as not to conflict with your Constitution and By-Laws.

Dr. Gardner: I will make that as a motion.

.... The motion was supported by Dr. Hirschman, and carried....

Speaker King: The next order of business is a motion to adjourn.

Is there any new business or resolutions to be offered?

.... It was regularly moved, seconded and carried that the meeting recess until 2 o'clock. The meeting recessed at 12 o'clock.

TUESDAY AFTERNOON, SEPTEMBER 14, 1926

The second session of the House of Delegates was called to order by Speaker King at 2 o'clock.

Speaker King: Please come to order.

Secretary: Mr. Speaker, I hold in my hand the signed roll call of a quorum for the House. I move you it constitute the roll call for the second session of the House of Delegates.

.... The motion was supported by Dr. Bidle and carried....

Speaker King: We shall now hear a supplementary report from the Chairman of the Credentials Committee.

Dr. J. H. Dempster (Wayne): There are six new names that have been added to the list of delegates since morning, making a total of 57.

Speaker King: If there are no objections, this report will be accepted.

Are there any reference committees ready to report? I understand the report of the Business Committee will come at 7 o'clock.

UNFINISHED BUSINESS

Secretary: There is none upon the desk, Mr. Speaker.

Speaker King: New business. Has any member any new business to introduce?

Secretary: I might say, Mr. Speaker and Members of the House of Delegates, this is the last opportunity under your rules, having but one more session tonight, to introduce new business. If any delegate has anything to bring before the House of Delegates regarding matters in his county or regarding matters concerning the State Society as a body, now is the time to bring it up, or if he desires information upon any problems or questions now before the State Society or his County Society concerning matters in Michigan, now is the time for him to bring it up.

Dr. William J. Cassidy (Wayne): Mr. Chairman and Members of the House of Delegates: There has been a great deal of talk, especially in our lower peninsula, particularly in Wayne, as regards the methods by which the University hospital has been managed in connection with the admission of patients. University hospital, as we understand it, will admit patients as charity patients and charge them up to the state. There should be no reason why the University hospital should admit pay patients and charge them to the medical profession. Why should the medical profession pay taxes to support the state hospital and then allow an individual who is worth $150,000 or $200,000 to go to that hospital and have an operation and be charged a fee which goes to the hospital? That is radically wrong as far as the profession is concerned, it seems to me. I would suggest that this ought to be investigated to see what is being done.

The situation in Detroit is getting to be such between two hospitals that the people are running wild, and they are not the people who are charity cases. The charity cases stay in the city in a great many instances and are being taken care of by the medical profession in the city and the adjacent members, who are devoting their time for nothing. The coal man and the man who sells bread and the lawyer and other fellows get paid for their services and the poor doctor works for nothing. If he has nothing when he passes away, he is put in the potter's field.

That is one of the situations where I think the medical profession is very, very lax. It is very beautiful, it is an altruistic method, but it takes dollars to buy bread for your children and you have to look out for yourself and your family in later periods of life. It seems to me we are doing too much work for the state and the community at large for which we receive absolutely nothing, and other departments are not doing what they should for the same and are being paid for the very same services which you are performing for absolutely nothing.

Now if the tenet upon which this is based at the present time is that of experience only, then the idea on which your men are appointed, gentlemen, is wrong; that is the attending surgeon or physician in any one of your major hospitals is appointed so he can get experience. Gentlemen, he was appointed upon a wrong basis, for he has already had his experience, or he shouldn't be the head of his department if he doesn't have it.

That is the situation you have to consider. It is getting more and more serious throughout the state and throughout the country. Hospitals are springing up, charity cases are coming in—misplaced charity in a great majority of instances, and there is no way of checking it up. These people run loose; social service workers can't check them up. The boards of health are running the same way, there is no way of checking the patients up. We see the thing continuously day after day.

Some of our polyclinics charge $10 for a circumcision. A good many young men will do a circumcision for $10 and be tickled to death to get it. That is the condition running rampant throughout the country. Who is saddling the expense? The medical profession themselves. It is taking the dollar from the average doctor, not from the big fellow who has a practice, he doesn't care, but it is the little fellow who loses out.

That situation is becoming more serious since you have the large University hospital at Ann Arbor. You see it time and time again. People whom you know have lots of money are going out there and getting work done either for a mediocre fee or they are being charged a very fair operative rate. Who gets the money? The state of Michigan, I understand. Why should the state of Michigan get it? You are helping to support the state of Michigan and the state hospital, why shouldn't the individual be made to go to a private doctor and allow him to pay his taxes to the state of Michigan in proportion.

I move that a committee be appointed to investigate these things throughout the state and report to the Society so that some measure can be taken along this line to check some of the things which are done, not from the period of charity but from the period of mistaken and unchecked up social service work.

....The motion was supported by Dr. Dutchess, of Wayne....

Dr. James D. Bruce (Washtenaw): If I understand the motion, Mr. Chairman, it has to do with the establishment of a definition of the word "charity" as applied to medical and surgical service as well as a checking up of all hospitals in the state in regard to the development of charitable work or what is interpreted as charitable work in the institutions now. Is that it?

Dr. Cassidy: Yes, sir. If an individual supporting his family is buying a home, a piano, an automobile any many other articles upon the instalment plan, he is spread out so thin that he can't take care of his average medical bill. Why should the doctor be the goat? That is what I would like to understand, what you classify as charity.

Dr. Bruce: I would like it to appear that that is the purpose of the motion: what is meant, what is the usual conception of the word "charity" with reference to medical and surgical work in hospitals within the state.

Dr. Biddle: Isn't that matter defined in a legal way?

Dr. J. L. Crum (Kalamazoo): In the beginning of your remarks, you referred directly to the University of Michigan hospital; in summing up your motion, you made no reference, at least no special reference to the University of Michigan hospital. I wish we could have some definite knowledge from the University of Michigan as to how they accept their patients and who they bar from that hospital and who they do not bar. As I understand it, a charity case going to the University hospital should have the sanction of the Poor Commissioner from the county from which he goes. I don't think that that is lived up to in the University hospital at this time.

Dr. Bruce: In a general way only, Mr. Speaker, I would like to say this: I am not prepared to state on just what terms patients are received in the hospital, but I recall a figure Dr. Hains gave that might be of interest with reference to the percentage of patients received in the University hospital. If I remember correctly, it was something like 2.59% of those received at the University hospital who were received as pay patients and definite specific fees charged them.

With reference to the general policy, I haven't the authority nor am I prepared to say what is being done at the University hospital.

Dr. John N. Bell (Wayne): I have recently been informed that any taxpayer in Michigan has a legal privilege of going to the University of Michigan hosptal and having treatment free. I should like very much to know if that is so.

Dr. H. J. Pyle (Kent): Mr. Speaker, I think Dr. Cassidy's motion is rather indefinite. If this attention is to be directed to the University hospital, why not make the motion tc read that way? We are getting up here and asking questions. The committee will investigate that and be able to answer questions. If

Dr. Cassidy will so state his motion that this attention is being directed to the University hospital, then we may get a definite report if a proper committee is appointed.

Speaker King: Is there any further discussion?

.... The motion was carried ....

Speaker King: The committee will be appointed at the evening session.

Is there any unfinished business?

Dr. Gardner: Mr. Chairman, there is one little matter I would like to bring to your attention. There have been a good many prosecutions made in the state of Michigan where quack doctors have been brought before the courts, and they get around it by bringing into the court some registered physician who can display his diploma. At the present time our medical laws are so lax that we have been unable to punish such a man for his offense. Until our laws are changed so that he can be notified of his offense and if he doesn't correct it and get out of business. his diploma will be taken from hm, this will continue to go on.

It would be a simple thing if we could get through a little legislation in that way, and we could wipe out a large number who are in the pernicious business of advertising and getting away with it simply by having somebody connected with them who is registered.

Speaker King: I believe the point is well taken. Last year a short paper which I read, the annual address, had to do with the parallel cases of doctors and lawyers. If a lawyer is crooked, is guilty of malpractice, he is disbarred. I don't see why the medical profession can't take the same stand. I stated that last year. I think Dr. Gardner takes it very well. He takes the proper stand in the matter. We should have some legislation whereby malpractitioners, crooked doctors, quacks, advertisers, could be disbarred from the practice of medicine.

Secretary: Mr. Speaker, I am authorized by the Chairman of the Council and the members of the Council to convey in somewhat of a confidential manner to the members of the House of Delegates the information that at the noon session of this Council, a fund was created by which the Executive Committee of the Council might take steps to protect the health of the public of Michigan. That is a diplomatic wording of a resolution which has beneath it a basic intent that is going to meet the point brought up by the genetleman from Wayne. In other words, your Council is now seeking to enter into a plan or a campaign of activity that is going to extend beyond educating the doctor and making him a better practitioner, one which will also protect his physical needs and unjust competition against him.

You know the difficulty encountered to secure evidence and present it to a prosecuting attorney to cause the issuance of a warrant; you can't do it unless you go down into your own pocket for it. Your state Council has now created a fund whereby such evidence is going to be secured, and we are going to try to show some activity to protect your physical as well as your mental welfare. (Applause).

Dr. Hirschman: In that connection, might I offer a motion such as this: that the Secretary, be instructed by the House of Delegates to gather such pamphlets and advertising matter as are being issued by individuals or institutions in the state of Michigan who are holding themselves up publicly by various types of advertising matter to treat and cure disease?

.... The motion was supported by Dr. Gardner ....

Dr. Brook: In regard to what Dr. Warnshuis has just said, I want to echo something from the last A. M. A. meeting. During a visit with members of the Association and during discussion, the matter of bringing culprits to justice was brought up. When I returned I spoke to Dr. Warnshuis about the possible feasibility of the state society employing an individual to look up evidence against these individuals because that is the sticker every time. Evidently he has brought it to the attention of the Council and they are going to get busy.

Speaker King: There is a motion before the House. Is there any further discussion?

.... The motion was carried ....

Speaker King: Is there any other new business?

Secretary: Mr. Speaker, the provision of the Constitution and By-Laws is that when terms of office of members of the Council expire the delegates from the Councilor Districts concerned shall be called into caucus by the state Secretary and make nominations to the House for election of members of the Council to succeed those whose terms expired. In compliance with that regulation of our By-Laws, and in view of the fact that the terms of office of the Councilors from the Fourth, Fifth or Sixth Districts expire with this meeting and new Councilors are to be elected, I would call in caucus the members of the Fourth District, that is the delegates from Allegan, Berrien, Cass, Kalamazoo and Van Buren Counties in this portion of the room after adjournment.

The members of the Fifth District, including Barry, Ionia, Kent and Ottawa Counties, will meet in this corner.

The members of the Sixth District, including Clinton, Genesee, Livingston and Shiwassee Counties, will meet in the center of the room in order that they may caucus and present nominations of Councilors to be submitted to the House of Delegates this evening.

Dr. B. F. Greene (Hillsdale): Mr. Chairman, I have some names to present as Councilor of the Second District. I would like to present two names for honorary membership in the Michigan State Medical Society. These names have been voted on by the Ingham County Society. They are Dr. Freeman A. Jones and Dr. Robert E. Miller. I move they be made honorary members of the Michigan State Medical Society.

Secretary: Mr. Speaker, that reference should go to the Council, and the Council in

turn will make a report upon it this evening. Then it will be presented to the House for election.

Dr. Brook: Mr. Speaker and Gentlemen of the House of Delegates: I have had in mind for a couple of years a little proposition which Michigan does not now have. In Illinois they have been carrying on this thing for some two or three or four years. Michigan has a good many distinguished practitioners, along with some others, like myself, probably not so distinguished. We have no historical data of Michigan physicians available. A couple of years ago I wrote to the Michigan Historical Commission asking for information, if they had any, and they replied saying that they had none. I told them my idea and they in turn replied they would be glad to co-operate and give us any assistance they possibly could in compiling a history of Michigan physicians. I think if a volume or two or three of that nature could be compiled they would be of immense value, particularly to future generations. We have men who have made history, not only for Michigan but throughout the world. I was again reminded of it this morning when Dr. Beaumont's name was mentioned.

To that end, gentlemen, I would like to move that a committee of five be appointed by the Speaker to devise ways and means by which a history of Michigan physicians may be brought about and reported at the 1927 House of Delegates.

.... The motion was supported by Dr. Hornbogen and carried....

Dr. Crum: Would it be out of order to request the committee of the Council to investigate the advisability of a re-registration of doctors in Michigan? Some of the eastern states, of which New York is one, I believe, have recently taken that step. If we are to clean up Michigan, there are a good many men in the medical profession now who possibly would be put on their toes if they felt they had to come before a committee for re-registration the same as barbers and beauty practitioners and so on, after a certain term of years. At the present time a man can get his diploma, never attend a medical meeting, never buy a new book or magazine and practice medicine until he is 70 years old. In the eyes of the board he is as much an authority as any man who keeps up to date. I would like to make a motion that the committee of the Council that is investigating this other matter of illegal practitioners report on the advisability of re-registration of doctors.

.... The motion was supported by Dr. Pyle, and lost....

Speaker King: If there is no other business we will recess until 7 o'clock tonight.

Speaker King: Is there any other new business?

The House will meet again at 7 o'clock.

.... The meeting recessed at 2:40 o'clock....

RECESS

TUESDAY EVENING, SEPTEMBER 14, 1926

The Third Session of the House of Delegates was called to order by Speaker King at 7:15 o'clock

Speaker King. This session will please come to order.

We will hear the report of the Reference Committee or Business Committee, please.

Dr. W. E. Collins (Kalamazoo): I don't see any of the other members, but I will do the best I can with the work as we took it up.

In the first place, we want to discuss briefly the report of the Council. They made a recommendation for election to honorary membership the following:

Dr. Mabb, Ottawa.
Dr. Ralph Spencer, Kent.
Dr. Dd Emmett Welsh, Kent.
Dr. Stoddard, Muskegon.
Dr. Quick, Muskegon.
Dr. Cramer, Muskegon.
Dr. Ralston, Wexford.

This Committee wishes to recommend the election of these men.

Secretary: Mr. Speaker and Mr. Chairman: May I interrupt the Chairman while he is making that report? The Council tenders additional nominations for honorary membership as follows:

Dr. F. A. Jones, Lansing.
Dr. Robert E. Miller, Lansing.
Dr. Eugene Smith, Detroit.
Dr. J. E. Clark, Detroit.
Dr. C. B. Stockwell, Port Huron.
Dr. G. S. Ney, Port Huron.
Dr. T. A. Felch, Ishpeming.

These additional nominations are made for election of honorary members.

Dr. Collins: In the Council report was a special article from Dr. Darling, the President. We wish to call special attention to this, relative to the suggested tuberculosis program. We recommend that the Council be authorized to confer with the proper University officers and also with the State Department of Health, looking toward the establishment of a course for health officers and others connected with this health program.

We also recommended favorable action of the following projects suggested by the Council:

1. That each county society subscribe for from 100 to 500 copies of Hygeia, to be placed in public reading rooms, schools and factories;
2. That each county society adopt and carry out the minimum program for county meetings;
3. That the Council be authorized to undertake measures for the enforcement of our state medical laws;
4. That the Council be authorized to perfect the state Red Cross Disaster Relief Organization in conformity with the recommendation of the A. M. A.;
5. That the Council be authorized to institute plans that will lead to the establishment of a postgraduate school at our University where our members will be accorded opportunity for continued study;
6. That the Council be authorized to organize a Women's Auxiliary as endorsed by the A. M. A.

We recommend the adoption of the report of the delegates to the A. M. A.

The Public Health Committee. This Committee stresses the necessity for better control of the open case of tuberculosis and recommends the establishment of more hospitals for its accomplishment and that every county shall spend a least $200,000 for a tuberculosis hospital.

Another solution suggested was the furnishing of competent health officers to supervise and train physicians to treat these people and nurses to care for them.

Attention of the Council is called to the fact that this Committee desires the subject matter of this re-

port to be placed before the next legislature. Our committee, however, questions the advisability of suggesting that every county spend at least $200,000 for a tuberculosis hospital. We recommend that the cooperation of the state tuberculosis society and the Department of Health be sought in these matters.

The Tuberculosis Committee recommendations are covered by the remarks of Dr. Darling under the head of the tuberculosis program embodied in the report of the Council. We recommend the adoption of this report.

Standard Insurance Reports Committee. Wthout any particular comment the committee recommends the adoption of this report.

The Committee on Medical Education. We wish to heartily commend the work of this Committee and feel that this plan should be continued; to this end we suggest that the Council of the State Society cooperate in every way possible with the present Committee.

Venereal Prophylaxis. There was no report this year from this Committee, and our Committee regrets that some action has not been taken on Dr. Wile's previous report.

Committee on Nursing Education. The Chairman of this Committee came over here expecting to correct some mistakes that got into the printing, but he didn't get a chance to do it. He wanted us to mention the fact that there were some mistakes.

The Committee discusses the various phases of this question and ends the report with a recommendation of the Lovett report, which is essentially as follows: "The Committee is of the opinion that the primary requirement of the present situation is the formulation and adoption of a standard minimum curricula for the training of the bedside nurse of private practice. The curriculum should be such that it could be carried out by relatively small hospitals away from medical centers.

"That a committee for this important and responsible work be appointed containing in its membership physicians who are competent clinical teachers, representative nurses and at least one educator, neither a physician nor a nurse. This committee should be arranged for by the Michigan State Nurses' Association and the Michigan State Medical Society, having equal representation and appointing its own representatives."

We recommend in this connection that the President appoint such a committee of two members from our State Society to act with the two members from the State Nurses' Association, these to name a fifth member of this committee.

"That after a proper time, training schools which do not conform to the scheme outlined by such committee should be classed and published as schools not accepted by whatsoever body, committee and organization is made responsible for the matter.

"That the educational requirement for admission to the training school shall, as soon as possible, be made four years of high school.

"That the course for the bedside nurse of private practice be made two years and four months.

"That necessary changes in legislation be adopted to conform to the shortened course.

"That subsidiary nursing be favored and adopted and be subject to the same committee or organization recommended which should formulate for it the standard minimum course of the same simple character as the one prescribed for the bedside nurse.

"That the post-graduate facilities be provided for the nurse who has graduated from the 28 months course and who desires to qualify herself for special nursing or for teaching.

"That the nurses' training must be regarded as a serious educational program, requiring more time for educational work and some reduction in her time in non-educational ward routine.

"That the better standards of teaching shall be required in the improved schools for both physicians and nurses.

"That the last two mentioned items will mean increased expenses to the hospitals maintaining training schools; but that in the end more serious results and greater expense will accrue to three hospitals unless something is done to remedy the conditions now prevalent in our state."

The Committee wishes to recommend the adoption of this report entirely.

Regarding the place of meeting, as the Council desires an expression from the House relative to holding our next annual meeting at Mackinac Island, the Committee feels there should be a discussion by the delegates here and if necessary a vote be taken to give the Council the information they desire.

That is the report of the Business Committee, composed of Cole, Wenger, Osborne, Mercer and Collins.

Speaker King: What is your pleasure with the report of this Business Committee?

Dr. Kimzey: I move it be accepted.

.... The motion was supported by Dr. Gorsline and carried....

Secretary: Mr. Speaker, the second part of the Committee's report is a recommendation as to the place of holding our next annual meeting. They desire a discussion of that part by the members.

Speaker King: Do we hear anything in regard to the idea of going to Mackinac for the next annual meeting? Is there any discussion?

Dr. Hornbogen: Mackinaw City or Mackinac Island?

Speaker King: Mackinac Island.

Secretary: For the information of the delegates, would you like to hear the proposition that has been submitted to us by the management of the Grand Hotel?

This is an invitation from the Grand Hotel at Mackinac Island, Michigan, requesting the honor of entertaining the Michigan State Medical Society in 1927.... Secretary read the letter....

Dr. Hornbogen: Mr. Speaker, although the island of Mackinac now belongs to the state of Michigan and not to the upper peninsula of Michigan, I remember the day when they put up a monument to Beaumont, that man who made history in regard to the gastric juices, and his name will go down in history. I understand that it is the object of this Association to place a memorial tablet of bronze on this monument that we put on the Island of Mackinac 27 or 28 years ago. I think the proper thing to do is to instruct your Council, which, as I understand under the new Constitution that I helped put through, is entitled to designate the city where the convention should go. I for one of the upper peninsula of Michigan would like to have you meet at Mackinac Island. I do not consider for one moment that you can beat the program that is to be put across in June, providing it does not conflict with any other meeting. I understand it will not because the American Medical meets in May this year on account of going to Washington. June will be the ideal month at Mackinac Island.

I move you that you, the House of Delegates,

recommend to the Councilors that they choose the Island of Mackinac on the dates specified by your honored Secretary. (Applause).

Dr. H. R. Carstens (Wayne): Mr. Speaker, the program of possible events which our Secretary has read to us, and which delegate Hornbogen, of Marquette, has elaborated upon slightly, is indeed a charming one. I think lots of us would find Mackinac delightful. One question has arisen and this is how about the month of June? Has any correspondence taken place concerning a possible meeting in September? The A. M. A., I believe, meets in May in Washington. In June there are many other things taking place, college commencements, alumni meetings, clinic week in Detroit, physicians' families are getting ready to leave the city, and so on. I was wondering whether any discussion or correspondence had been had regarding another time for the meeting.

Dr. Hornbogen: The summer of the upper peninsula of Michigan begins on the twenty-fifth day of July and absolutely ends on the thirteenth day of August. If you want to face anything in September, go up there and freeze to death. I just came from there. (Laughter).

Speaker King: Is there any further discussion?

Dr. Brook: Mr. Speaker and Members of the House of Delegates: I think the point made by Dr. Carstens is well taken. We should consider that in June there are numerous activities in regard to school closings and graduations and things of that kind which a number of the men of the state Society wish to attend. The week of graduation of a great many schools is particularly the week of June 14th and June 17th. I think that would be a very inopportune time to hold a state meeting. Probably it would be better to hold it in August before the 13th, or whatever date the honorable gentleman from the northern peninsula designated.

Dr. Hornbogen: Mr. Speaker, may I answer my sidekick, J. D. Brook? My dear friend, J. D., you and I have kicked together 10 years in the American Medical Association. You know that when we went to New Orleans we went in April; you also know when we went to Dallas, Texas, we went in April. When we go to Washington, we go in May; when we go to St. Louis we go in May. When we go to Chicago we go in June. When we went to San Francisco, we went in June. We have never been separated for 10 years.

Here is the point that I want you to stop and consider, that is the absolutely unqualified invitation extended by the biggest hotel on Mackinac Island. They cannot take us at the height of the season. They cannot take us during the hay fever season, so we as humble citizens of the state of Michigan must accept their proposition or name some other town in the lower peninsula that wants this organization. That is my answer to you. (Laughter).

Speaker King: Did I hear anybody second the motion of Dr. Hornbogen?

....The motion was supported by Dr. Walker, of Wayne....

Dr. Hornbogen: I will make the motion to accept the invitation from the Grand hotel at Mackinac Island on the dates specified in their letter, June 14 to 17, 1927.

Dr. Brook: Mr. Speaker, if I may speak once more, my honorable friend Hornbogen has no children who graduate from school and, consequently, it doesn't make any difference to him whether he goes out during the period from June 14 to June 17 or from December 14 to December 17. I think it does make a difference to some other individuals. I think probably if we could get the week following the dates specified, it would be acceptable to a larger number of individuals.

Dr. Roger V. Walker (Wayne): Mr. Speaker, June has 30 days. It just might happen that the week after or the week before this date there will be some other colleges that have commencement. Somebody is going to be out anyway. That is just something to think about. You have to take the time that is most opportune.

Dr. Brook: Mr. Speaker, the 14th to the 17th, as I understand it, is in the beginning of the season. Why not have it the latter end of the season, the latter part of August? That is nearer the date we are holding our present meeting.

Dr. Hornbogen: Mr. Speaker, may I answer that question in just one moment?

Speaker King: Glad to hear you talk, go ahead.

Dr. Hornboken: I came by Mackinac Island last night. The latter part of the season it is filled with hay feverites and you can't get in. The only dates that you can accept are the dates that have been specified by this hotel. If you want to make a change in this, the proper thing to do is have some city from the lower peninsula of Michigan extend an invitation to this organization, and I will back you up.

Dr. Crum: You wouldn't get a baker's dozen there anyway at any time of the summer. We have talked over the policy of holdlng meeting of the state Society in different towns to stimulate interest. We went to Muskegon and had 27 at the House of Delegates. Here we have 57 or 58. I think for the best interests of the Society, if the meetings of the Society are of any good to the Society, any good to the membership, we should hold the meeting in one of the three or four large towns in the center of Michigan. (Applause).

Dr. Hornbogen: Dr. Crum, I believe. May I have the floor a moment?

This matter that you speak about recently came up at Menominee in the upper peninsula of Michigan in regard to the Upper Peninsula Medical Society. That is an old, old question. Personally, I believe that every meeting of the American Medical Association should be held in the city of Chicago because it is centrally located. When we go to Boston, when we go to Washington, Atlantic City, New Orleans, Portland, or San Francisco, we only have a regional number of members, we have the old bunch who always go. The same thing exists in your state medical society.

I advocate that all the meetings of the state medical society of Michigan should be held at Detroit or Ann Arbor where we have the clinical facilities and all those things, but it can't be done. We have tried that in the American Medical Association. They are trying to work it out in the Upper Peninsula Medical Society. That is one of the things that cannot be done.

Don't think for one single instant that I want the meeting to go to Mackinac Island. You can have it in any town in the lower peninsula. I have been working on this little game you are thinking about for 25 years, and so far we have been unable to accomplish it in the American Medical Association. As long as we cannot accomplish it there, I don't think that the state Medical Society of Michigan can do it nor the Upper Peninsula Society. Recently in the Upper Peninsula Society I have opposed my bosom friend, T. W. Scholtes, of Munising, and tonight I have opposed my personal friend of a great many years' standing, J. D. Brook, but I am talking for a principle

and not for friendship's sake. J. D. and I will remain friends just the same no matter what I say or what he says. The point is that this cannot be done. So if this Society wants the meeting at Mackinac Island, they should have it there; if not, the Speaker should call for another invitation.

Dr. Biddle: The Council decides that.

Dr. Hornbogen: I know the Council decides it, I explained that in a former talk.

Dr. Gardner: I will admit there are things to consider on both sides. I don't believe that we will get the crowd at Mackinac Island that we might get in some of the other towns. There are one or two things we should take into consideration. On account of the Beaumont affair it is a fitting place to hold the meeting. There is a little history connected with it.

Gentlemen, we have got to give and take. We can't have everything our own way. The proposition that has been made to us tonight is certainly a wonderful one when you consider the prices and when you consider what they are giving us. I want to say to you the management of that hotel is certainly going some and giving us a wonderful, liberal offer. We will get wonderful entertainment there. It will be a wonderful place and there is a lot of history connected with it. Those who go will certainly get the worth of their money, there is no question about that. I think the boys ought to all make an extra hard effort to turn out and go up there.

There is another thing, it will perhaps be an incentive to the boys of the northern peninsula to unite with us, and there will be a larger representation from the northern peninsula than we have ever had before. We have to give and take; we can't get it in Detroit or some other place near us. Let's get out and do our part of the work and try to help out. I realize what has been said tonight is the essence of truth, it may inconvenience us, but let's push that aside and get out and go up there.

Dr. H. D. Robinson (Manistee): This matter of attending medical conventions is not a matter of just feelings. I don't know one-tenth of these men around here in this neck of the woods. Up in Manistee we drive down 200 miles in the morning to one of these meetings. Take a train and go up there and see that part of the country. Hornbogen comes down here every time to the State Medical Society, I see his genial face right on the map every time. Brook comes, too. Why? Because they have an interest in this medical Society. We can go up there just as well as they can come down here. We can go there as well as we can go to Detroit. I had to go to Mt. Clemens last year and it was incovenient to get there, but I went just the same. Hornbogen was there just the same.

.... The motion was carried ....

Secretary: Mr. Speaker, the Council, by reason of certain local conditions recommends to the House that you authorize the transfer of Livingston County from the Sixth District to the Fourteenth District. This would bring the members of Livingston County in association with the Washtenaw County Medical Society, of which Society the majority of the doctors in Livingston County are now members. The Livingston County Society is not active and has been a part of the Sixth District, which is out of the range, really, of the Councilor of the Sixth District. Therefore, the Council recommends that you authorize the transfer of Livingston County to the Fourteenth District.

Dr. Biddle: I make such a motion.

.... The motion was supported by Dr. Yates, of Wayne....

Dr. Biddle: Is that at their request?

Secretary: At their request and at the request of the two concerned Councilors.

.... The motion was carried ....

Speaker King: We will hear the report of the Special Committee on Legislation, Dr. Brook.

.... Dr. Brook read the report ....

SPECIAL COMMITTEE ON NATIONAL LEGISLATION

The material referred to your Committee consists of the following submitted by Dr. Wm. C. Woodward, Executive Secretary Bureau of Legal Medicine and Legislation A. M. A.

1st. "An act to safeguard the distribution and sale of certain dangerous caustic or corrosive acids, alkalies and other substances in interstate and foreign commerce." Your Committee gives endorsement to this bill, and recommends that a similar bill be introduced in the State Legislature.

2nd. An act to authorize for the fiscal years ending June 30, 1928 and June 30, 1929, appropriations for carrying out the provisions of the act entitled "An act for the promotion of the welfare and hygiene of maternity and infancy and for other purposes." This act is the so-called Shepherd-Towner law upon which the A. M. A. has gone on record as being opposed and your Committee do so recommend.

3. A bill to amend an act entitled "An act to provide for the registration of, with collectors of internal revenue, and to impose a special tax upon all persons who produce, import, manufacture, compound, deal in, dispense, sell, distribute or give away opium or cocoa leaves, their salts derivatives or preparations and for other purposes, as amended. Your Committee recommends that the Society go on record as opposed to this bill as amended.

4. "An act to regulate the practice of chiropractic; to create a Board of Chiropractic Examiners of the District of Columbia and to punish persons violating the provisions thereof." Your Committee is whole-heartedly opposed to this bill and do so recommend.

Your Committee further recommends that each Councilor of the State Society shall be entrusted with the duty of enlisting the aid of the medical profession of his district to protect or approve individually and collectively by either letter or telegram to their senator and representative as per the recommendations of this report.

A. P. Biddle,
C. C. Clancy,
J. D. Brook.

Dr. Brook: Mr. Speaker, I move the adoption of this report.

....The motion was supported by Dr. Wilson, of Wayne, and carried....

Speaker King: We will hear the report of the Committee on Amendments and Changes in the Constitution and By-Laws

Dr. Carl Moll (Genesee): Mr. Speaker and Members of the House: Your Committee begs to report as follows: After conferring with Dr. J. D. Brook, former chairman of this committee, we find through a typographical error the clause "except the President" was omitted after the words "general officers" in the text of the next to the last line, first paragraph of his report, amending Article V, Section 1 of the Constitution. Inasmuch as Article VII, Section 4, is in conflict with the above paragraph, it should be omitted from the committee's report.

There is also a further typographical error in Chapter VII, Section 3, which was intended to read, "Chapter VI, Section 3.

This we believe clarifies the situation.

Respectfully submitted,
(Signed) A. P. Biddle,
L. J. Hirschman,
C. F. Moll.

Speaker King: What is your pleasure with this report?

Dr. Kimzey: I move it be accepted.

....The motion was supported by Dr. Crum, and carried....

Speaker King: We want a report of the Nominating Committee at this time.

NOMINATIONS

Dr. Harry F. Dibble: We recommend the following for Vice-Presidents:

1st—E. I. Carr.
2nd—W. J. Cassidy.
3rd—V. Y. Fisher.
4th—J. J. Haviland.
For the three delegates to the A. M. A.:
1st—C. S. Gorsline.
2nd—L. J. Hirschman.
3rd—George Frothingham.
For Alternates:
1st—A. W. Hornbogen.
2nd—C. E. Boys.
3rd—J. G. R. Manwaring.

Speaker King: What is your pleasure with the report?

Dr. Clark: I move you that the report be adopted.

Dr. Pyle: I was almost pained not to hear the name of Dr. J. D. Brook on the list of A. M. A. delegates. I don't know by what order of business this can be changed. May I ask the Chairman of this Committee how many members were present?

Dr. Dibble: Four.

Dr. Pyle: That was due to the fact that one man elected this morning by three votes over a man from Kent was not there. This represents the thought of four men, not five. With all due respect to this committee, the way I read it these delegates to the A. M. A. are all from Wayne. More strength to Wayne! I certainly haven't any feeling toward any of the names mentioned. When they omit a man's name like the name of Dr. J. D. Brook, a general practitioner, my conferrer from Kent, a man in all sincerity who has done more for organized medicine in a quiet way than any other (the only time he gets noisy is when he talks to Hornbogen), I feel pained. If there is some order of business by which this can be rejected and we can have a discussion of thought, I move you this report be not adopted as read.

Dr. Hornbogen: Pyle from Kent, you have, as I understand, the regulations and rules of Robert's Rules of Order and the organization of the State Medical Society of the state of Michigan under which to nominate J. D. Brook as a delegate to the American Medical Association in spite of this Nominating Committee, who brought in an adverse report to J. D. Brook. If you will get up and make that motion, let's hear it.

Dr. Pyle: Mr. Speaker, I don't care to make a motion. Let me add another thing: these men are all from Wayne. (Cries of "No"). We have one member by virtue of our Secretary being a member. I understand he turned his work over to an alternate. I feel western Michigan should be represented. I put the welfare of the Michigan State Medical Society above everything else and, secondly, my friendship for Dr. Brook, who has worked hard and sincerely. I would like to see somebody nominate him.

Dr. Hugh Stewart (Genesee): I move Dr. J. D. Brook be named as delegate to the A. M. A. Dr. J. D. Brook has done probably more work than any man in this room for the medical profession in the state of Michigan. You are not recognizing Kent County in any way, because Dr. Warnshuis, by virtue of the office of Secretary, stepped out and allowed an alternate to take his place. For that reason I think Kent County should be recognized in some way, and for that reason I nominate Dr. J. D. Brook as a delegate to the A. M. A.

....The nomination was supported by Dr. Southwick, of Kent....

Secretary: Mr. Speaker, as a matter of interpretation the members of the House of Delegates should consider the Nominating Committee's report as simply placing in nomination these men and does not prevent any delegate from submitting additional nominations before the ballot is spread. You don't adopt the report and elect these men by simply adopting that report; you spread your ballot.

The first ballot, Mr. Speaker, is for the four Vice-Presidents. The Nominating Committee has nominated—

E. I. Carr,
W. J. Cassidy,
A. F. Fisher,
J. J. Haviland.

The question before the House is what do you want to do with the nominations.

Dr. Hugh Stewart (Genesee): I move those men be elected as the four Vice-Presidents of this organization.

....The motion was supported by Dr. Dempster and carried....

Dr. Hornbogen: I understand there is a nomination before the House of J. D. Brook, made by Dr. Hugh Stewart.

Dr. Hugh Stewart: I nominated J. D. Brook as a delegate to the A. M. A.

Dr. Hornbogen: Thank you. I want to second the nomination of J. D. Brook. J. D. Brook and I have fought for 10 years side by side in the American Medical Association and we have put Michigan on the map. Now if it is up to the delegates of this State Medical Society to turn down J. D. Brook, turn him down; but you want to remember that the

other states, Illinois, Ohio, Iowa, New York, Pennsylvania, keep their delegates in for 15 to 20 years. It takes at least five to ten years to get your acquaintanceship in order to do anything. Everything that has been done for 10 years in the American House of Delegates has been done by my friend, J. D. Brook. (Applause).

Speaker King: Four names for delegates to the A. M. A. will be ballotted upon.

Dr. Phil Quick (Eaton): Mr. President, we are a long way from the seat of trouble and we feel as though we are entitled to a little representation. It is the old proposition of taxation without representation. I wish to place in nomination a man who probably is the father of organized medicine in the upper peninsula. He goes around to the various county societies, stimulates them, does everything possible to help organized medicine. He has been a delegate to the American Medical Association, and every one knows what he has done. He has put Michigan on the map in the American Medical Association and has kept her there. I wish to nominate Dr. A. W. Hornbogen, of Marquette.

....The nomination was seconded by Dr. Robinson....

Speaker King: The following men are nominated as delegates to the A. M. A.

Gorsline,
Hirschman,
Frothingham,
Brook,
Hornbogen.

I will appoint Dr. Kimzey, Dr. Yates and Dr. Dempster as tellers.

Vote for three of the nominees on the board.

...The ballot was spread...

Speaker King: Has every one voted? I declare the ballot closed.

Dr. C. C. Clancy (St. Clair): In looking over the Constituton and By-Laws, I find in Chapter III, which relates to the duties of the House of Delegates, Section 6, paragraph d, page six, which I shall read: "It shall elect delegates to the American Medical Association in accordance with the ruling of the parent organization."

I want to ask the Speaker of the House of Delegates of the American Medical Association what the rules of that organization are that we must follow.

Secretary: Mr. Speaker and Members of the House of Delegates: The rules of the American Medical Association in regard to the constituent members that compose its House of Delegates are that at each triennial meeting of the American Medical Association a special committee apportions the various constituent State Societies' delegates according to their numerical membership in good standing. Second, a delegate must have been a Fellow of the A. M. A. for at least two years. That is the only rule that governs the House of Delegates of the Michigan State Medical Society. We are entitled to five delegates, elected by our organization, according to our numerical strength. Two terms do not expire at this time.

Speaker King: Does that settle the question, Dr. Clancy?

Dr. Clancy: Yes.

Speaker King: I will ask the Secretary to read the result of the ballot.

Secretary: The result is as follows:

Dr. Gorsline, 37 votes.
Dr. Hirschman, 35 votes.
Dr. Frothingham, 34 votes.
Dr. Brook, 36 votes.
Dr. Hornbogen, 25 votes.

According to that, Dr. Gorsline has the highest number of votes; Dr. Brook, second highest with 36; and Dr. Hirschman, third with 35.

The next is the election of three alternate delegates. You have before you the nominations of:

A. W. Hornbogen,
C. E. Boys,
J. G. R. Manwaring.

Dr. Biddle: I move the Secretary cast the ballot for these three nominees.

....The motion was supported by Dr. Walker, of Wayne, and carried....

Secretary: Mr. Speaker, in compliance with the provision of our By-Laws whereby the state Secretary shall call caucuses of delegates of Councilor Districts to nominate Councilors in place of those whose terms expire, I report to you that the delegation of the Sixth District, composed of the several societies, nominates Dr. Cook, of Flint, to succeed Dr. Randall as Councilor of that District.

The Fourth District nominates Dr. C. E. Boys to succeed Dr. J. B. Jackson as Councilor of that District.

The delegates of the Fifth District nominate Dr. B. R. Corbus to succeed himself as Councilor of that District.

Dr. Biddle: I move the Secretary cast the ballot for those men.

....The motion was supported by Dr. Kimzey, of Wayne, and carried....

Secretary: Mr. Speaker, your Secretary does so cast the ballot of the entire House of Delegates for A. W. Hornbogen, C. E. Boys and J. G. R. Manwaring as alternate delegates to the American Medical Association, and for Dr. Cook, Dr. Boys and Dr. Corbus as Councilors of their respective districts named.

Speaker King: I declare these men elected.

Dr. Hugh Stewart: I wish to place in nomination the name of Dr. J. E. King, of Detroit, for Speaker for the ensuing year.

Dr. Crum: I nominate Dr. West. of Painesdale.

Dr. Dibble: I nominate Dr. Carstens.

Dr. Bell: I move the nominations be closed.

....The motion was supported by several members, and carried....

Secretary: The nominees are King, of Detroit, and West, of Painesdale.

Speaker King: I wonder if the same tellers will act this time again.

Dr. Hugh Stewart: Mr. Speaker, can a man withdraw his own name under the rules?

Speaker King: He may do so, but it isn't necessary for us to accept it. (Laughter).

....The ballot was spread....

Speaker King: Has every one voted? I declare the ballot closed.

Mr. Secretary, will you please announce the result of the ballot?

Secretary: Mr. Speaker and Members of the House: The following is the result of your ballot: King receives 14 votes and West, 26, and Carstens, 16.

Speaker King: Dr. West, then, is declared elected to the difficult task of Speaker of the House.

Dr. Brook: Mr. Speaker, according to our Constitution and By-Laws we are working under Robert's Rules of Order and that necessitates a majority for an election. Dr. West has received less than half. He is, therefore, not elected, in my opinion.

Dr. Biddle: Mr. President, I move that Dr. West be elected to this office.

....The motion was supported by Dr. Hafford....

Dr. Hornbogen: As I understand it, that motion would have to be unanimous in order for him to be declared elected.

Speaker King: Let's have the unanimous vote for Dr. West. All in favor say "aye"; contrary.

Dr. Hornbogen: No.

Speaker King: The motion is carried. Dr. West is declared unanimously elected by the House.

Dr. Hornbogen: I beg to rise to a point of order. Your decision is absolutely incorrect. It requires a majority vote of every member in the House in order to abrogate the rules of Robert's Rules of Order, and we are working under those rules.

Speaker King: Wasn't that unanimous.

Dr. Hornbogen: No, it was not.

Speaker King: The next order of business is unfinished business.

Dr. Biddle: How about a Vice-Speaker?

Speaker King: Nominations are in order for Vice-Speaker.

Dr. Walker: Mr. Speaker, I would like to nominate Dr. Henry Carstens for Vice-Speaker.

....The nomination was supported by Dr. Moll....

Dr. Kimzey: I move the nominations be closed.

Dr. Wilson: I move the Secretary cast the ballot of the House of Delegates for Dr. Henry Carstens as Vice-Speaker.

....The motion was supported by Dr. Colvin, and carried....

Secretary: Mr. Speaker, your Secretary does so cast.

Speaker King: Dr. Henry Carstens is declared elected Vice-Speaker of the House of Delegates for the coming year.

Dr. Hornbogen: You still have to elect a Speaker.

Speaker King: We don't need any extra speakers.

The next order is unfinished business.

Dr. Hornbogen: Mr. Speaker, you still have to elect a Speaker of the House, according to Robert's Rules of Order. If you gentlemen intend to run this organization absolutely in disregard to Robert's Rules of Order, you are absolutely doing wrong. I am as great a friend of Dr. West's as any one who ever lived; I backed him twice for the presidency of this organization and all that kind of thing, but I say what you have done is absolutely irregular. There is no rule in Robert's Rules of Order that will bear you out, regardless of the Speaker of this House.

Dr. Brook: Mr. Speaker and Gentlemen of the House of Delegates: For 20 years I have consecutively represented my county society in this House of Delegates, one year of which you honored me as your Speaker. For the past 10 years you have honored me as one of your delegates to the American Medical Association. I want to take this opportunity of expressing to you my sincere and whole-hearted thanks for the honor you have again conferred upon me in electing me as a delegate to the American Medical Association. I thank you not for the duty which you have imposed upon me, but for the expression of confidence you have given me. I trust that I may prove true to that expression of confidence. I thank you. (Applause).

Speaker King: Unfinished business, please.

The Chairman of the Council has something to communicate.

Dr. John B. Jackson: Mr. Speaker, there was one matter in the report of the Council which the Business Committee did not report on which we considered rather important. I should like to call attention of the House to this paragraph before you adjourn and ask you to take some action on the matter. Let me read this paragraph.

The Council has investigated whether it is possible to receive bequests and endowments for funds from which the proceeds will be employed for the furtherance of post-graduate work. We are advised by competent legal authority that our articles of incorporation will not permit us to create such a fund in the name of the State Medical Society. The Society, however, can arrange a trustee group of three or five members and this trusteeship may receive such funds and appropriate these proceeds from this fund to the work of furthering medical education in Michigan.

The Council would be very happy if the House of Delegates saw fit to authorize them to create such a trusteeship.

Dr. Wilson: Mr. Speaker, I move that the Council be instructed to create a board of trustees to handle trust funds, endowment funds, for the State Medical Society.

....The motion was supported by Dr. Hornbogen and by Dr. Gorsline, and carried....

Speaker King: A motion to adjourn is in order.

Dr. Biddle: Weren't there some committees to be appointed and announced this evening?

Secretary: The committee that the Speaker was authorized to appoint was to investigate the matter that was brought up by Dr. Cassidy under new business this afternoon. The motion was that the Speaker appoint this committee.

Dr. Biddle: Isn't it usually the custom for the next Speaker to appoint the committees?

Speaker King. He doesn't have anything to do until the next meeting.

Speaker King: I think on account of the fact that this apparently is of a good deal of interest to the profession in Michigan, I will hesitate and make appointment a little later.

Dr. Hornbogen: The time is now, because the man who hesitates is lost.

Secretary: Mr. Speaker, before the House adjourns, I would like to make a little announcement regarding the meetings tomorrow and what has been provided for our entertainment this year.

.... Secretary Warnshuis made several announcements in connection with the program....

Secretary: The Ingham County Medical Society has provided a number of entertainments for the members who are present here, and I think you will find that they are very active in trying to make this one of the best meetings that we have. It would be very amiss indeed if this House of Delegates, the expressing body of our Society, adjourned without passing a vote of resolution of thanks for the splendid and wonderful arrangements that have been perfected for this our 106th annual meeting.

Speaker King: I should be glad to entertain such a motion.

Dr. Biddle: I make such a motion.

.... The motion was supported by Dr. Chester, of Detroit, and carried....

Speaker King: All in favor of this motion say "aye"; contrary. It is carried.

Is there any other business before we adjourn?

Dr. Biddle: I move we adjourn.

.... The motion was supported by Dr. Kimzey and carried....

Speaker King: Before we adjourn, I want to thank you for your co-operation and, as the bum actor said, for the laugh I picked up once in a while.

.... The meeting adjourned sine die at 8:45 o'clock...

Adjournment.

F. C. Warnshuis, Secretary.

GENERAL SESSION

WEDNESDAY EVENING, SEPTEMBER 15, 1926

The first General Session of the 106th Annual Meeting of the Michigan State Medical Society was called to order by President C. G. Darling, of Ann Arbor, in Prudden Auditorium, Lansing, Michigan, at 8:20 o'clock.

President Darling: The meeting will please come to order.

The audience will please rise while we have the invocation by Rev. Frank Kingdom, of Lansing.

Rev. Frank Kingdom: Our heavenly Father, we thank Thee that Thou has put us not into a lonely world, but that Thou has put us into a world of people, of people whom we can help, of people who can become our friends. We thank Thee that Thou hast crowned our human lives with this sublime experience of friendship and of service. For these men who are giving their lives to the alleviation of physical suffering, we return our thanks to Thee, and upon us all we pray Thy blessing that with a new tenderness as well as with a new skill we may bring whatever gift we may have to the service of those who suffer; in Jesus' name. Amen.

President Darling: The next order of business will be an address of welcome by Fred L. Seger, President of the Ingham County Society. (Applause).

Dr. Fred L. Seger: Members of the Michigan State Medical Society and Guests: It is my very great pleasure and honor to extend to you the cordial welcome of the members of the Ingham County Medical Society. There are in this society 100 members and its committees have been very busy for some time past making plans for the successful entertainment of this convention. We sincerely hope that you will have much pleasure as well as profit in your visit to Lansing.

It may be of interest to recall that this inland city was first selected as the capital of Michigan in 1847 and was called Village of Michigan. The name was subsequently changed to Lansing in 1849 by a legislative act.

We hope as you go about Lansing that you will be proud of Michigan's capital city. We hope that you will visit the three state schools within our borders, the Michigan State College, which is the oldest and largest land grant college in the world, the Michigan State School for the Blind and the State Vocational School for Boys.

We are also proud of industrial Lansing, it being made famous as the home of the first practical mechanical moving automobile. We have over 14,000 people on the industrial pay rool. We have an $8,000,000, school system free of debt.

As a medical center Lansing is fortunate in having two fully equipped 100-bed hospitals, a sanitarium and a contagious disease hospital. Lansing also is fortunate in having located here the laboratories of the Michigan State Department of Health whose personnel is highly qualified and ever ready to serve all the physicians of the state.

We hope that you will take advantage of the willingness of our committee members to serve you. Again, I welcome you to all the pleasures and privileges of Michigan's capital city. (Applause).

President Darling: We thank you for this welcome.

We have been going about Lansing and we never knew that by an act of legislature this had been established some years ago, we thought it had always been here. You know people get that idea about Lansing, that it has always been right here. We haven't been to the hospitals today, we haven't even been to select our automobile today, but we are enjoying the hospitality of Lansing to its fullest extent as it is handed out to us by the physicians and friends here.

Thank you. (Applause).

Secretary Warnshuis: The Michigan State Medical Society has been in existence 106 years, and this is our 106th annual meeting. During that term of years we have had many distinguished and noble presidents, men whom we have always pointed to with pride and whose leadership we have always subscribed to with unstinted support. Particularly this year have we been fortunate in having as a leader a man who is a friend of the profession as well as a friend of the people, who has occupied and held many a distinguished position in this, our commonwealth of Michigan. It is, therefore, with particular pleasure that I introduce to you tonight our retiring President. Dr. C. G. Darling, of Ann Arbor, who will now deliver his annual address. (The audience arose and applauded).

.... President Darling read his address .... (Applause) [See Original Articles].

President Darling: We have with us tonight one of the most sincere men in Michigan. I say that because of his great sincerity, not because there are no other sincere men, and I want you to accept that as my rating of his sincerity. He will talk to you about the increasing responsibility of the medical profession. I have the pleasure of introducing to you Dr. Little, President of the University of Michigan. (The audience arose and applauded) [The Address will be published in the November issue].

President Darling: We will now entertain nominations for President of the Society.

NOMINATIONS FOR PRESIDENT

Dr. Herman Ostrander, Kalamazoo:

Mr. President and Fellow Members of the State Medical Society, I feel greatly honored being privileged to place in nomination the name of a man to be elected to the office of President of our State Society. This man needs no introduction to this audience of doctors. As an individual practitioner he has made a reputation for himself that is enviable. His record as a public health worker is beyond question. His interest in Medical Societies has been one of sustained activity. As a man who has served as Councilor and as Chairman of the Council he has repeatedly demonstrated to you his intense and sincere interest in the welfare of our Society. Known therefore as he is to you, we honor ourselves as in turn we honor him by electing him to this high office. I therefore place in nomination, Mr. President, Jackson of Kalamazoo. Applause.

President Darling: Are there any other nominations?

Dr. B. A. Shepard (Kalamazoo): I second the nomination.

Dr. H. E. Randall (Flint): I desire to second the nomination of Dr. Jackson.

President Darling: Are there any other nominations? Hearing no others, I declare the nominations closed. (Applause).

Dr. T. S. Langford (Washtenaw): Mr. President, I move the Secretary be instructed to cast the unanimous ballot of the Society for the election of Dr. Jackson, of Kalamazoo.

....The motion was seconded variously and carried....

Secretary: Mr. President, I do so cast the entire vote of the registered membership of your state Society for Dr. J. B. Jackson as your President for the ensuing year. (Applause).

President Darling: The meeting is adjourned.

.... The meeting adjourned at 9:30 o'clock.

THURSDAY MORNING, SEPTEMBER 16, 1926

The Second General Session of the Michigan State Medical Society was called to order at 11:50 o'clock in the ball room of Hotel Olds, Lansing, by Secretary Warnshuis.

Secretary: Gentlemen, will you be seated for a moment? This is a mere matter of constitutional provision. We are supposed to have a second general session, and it has been customary at this general session to present the President-elect, the new incoming President to office.

Mr. President, I have to report to you that the unanimous vote of the 627 registered members was cast in favor of Dr. J. B. Jackson as President for the ensuing year.

President Darling: This is very good information that we have, Mr. Secretary, and I think it is something with which we all agree. I have the honor of presenting to you the President-elect, Dr. Jackson, of Kalamazoo. (Applause).

President-Elect Jackson: Mr. President, I thank the Michigan State Medical Society for the honor which they have given me. I appreciate the responsibility which goes with the honor. I appreciate the responsibility especially following as I do a man who is so universally beloved by the medical profession of the state and who has such a wide vision of our problems and their solution as Dr. Darling. I can only promise I will do the best I can to serve you as the President of the Michigan State Medical Society. (Applause).

.... The meeting adjourned at 12 o'clock.... Adjournment.

F. C. Warnshuis, Secretary.

REGISTRATION

Our total registration was 626 represented by Counties as follows:

ANNUAL MEETING REGISTRATION

Alpena County—2

O'Donnell, F. J., Alpena.
Williams, C. M., Alpena.

Northern Michigan—5

Chapman, W. Earle, Cheboygan.
Duffie, Don H., Central Lake.
Mayne, Frederick C., Cheboygan.
McKillop, A. J., Wolverine.
VanLeuven, B. H., Petoskey.

Barry County—7

Brown, C. K., Nashville.
Cross, Maurice Y., Delton.
Keller, Guy C., Hastings.
Lathrop, C. P., Hastings.
McIntyre, C. S., Hastings.
Morris, E. T., Nashville.
Swift, B. C., Middleville.

Bay County—3

Baird, Fred S., Bay City.
Urmston, Paul R., Bay City.
Williams, Mary A. W., Bay City.

Benzie County —1

MacKenzie, Robert G., Frankfort.

Berrien County —8

Bartlett, H. G., St. Joseph.
Ellet, W. C., Benton Harbor.
Giddings, Burton D., Niles.
Henderson, Robert, Niles.
McDermott, John J., St. Joseph.
Rutz, Lawrence M., Niles.
Snowden, Robert H., Buchanan.
Westervelt, Herbert O., Benton Harbor.

Branch County—2

Bien, Walter, Coldwater.
Schultz, Samuel, Coldwater.

Calhoun County—45

Abbott. Nelson, Marshall.
Barnhart, S. E., Battle Creek.
Byland, Nils O., Battle Creek.
Chauncey, E. M., Albion.
Church, S. K., Marshall.
Colver, Burton N., Battle Creek.
Cooper, J. E., Battle Creek.
Eaton, S. R., Battle Creek.
Eggleston, Elmer L., Battle Creek.
Elliott, James A., Battle Creek.
Fraser, Robert H., Battle Creek.
Gordon, J. K. M., Battle Creek.
Gorsline, C. S., Battle Creek.
Hafford, G. C., Albion.
Hale, Claude E., Marshall.
Harris, Rowland H., Battle Creek.
Haughey, W. H., Battle Creek.
Haughey, Wilfrid, Battle Creek.
Heald, C. W., Battle Creek.
Heyzer, H. A., Albion.
Hills, Carlon R., Battle Creek.
Holtom, Benjamin George, Battle Creek.
Keeler, K. B., Albion.
Knapp, Harry B., Battle Creek.
Leach, Mary Dryden, Battle Creek.
Lowe, H. M., Battle Creek.
MacGregor, A. E., Battle Creek.
Mortensen, M. A., Battle Creek.
Nelson, A. W., Battle Creek.
Nielsen, Evelyn O., Battle Creek.
Nielsen, J. M., Battle Creek.
Norman, Estella G., Battle Creek.
Olsen, Alfred B., Battle Creek.
Pritchard, Stuart, Battle Creek.
Riley, William H., Battle Creek.
Rosenfeld. J. E., Battle Creek.
Russell, Edwin P., Battle Creek.
Serio, Philip P., Albion.
Selman, B. L., Battle Creek.
Stewart, Charles E., Battle Creek.
Stone, Ray C., Battle Creek.
Stegman, Louie V., Battle Creek.
Van Camp, E., Battle Creek.
Walters, F. R., Battle Creek.
Wencke, Carl G., Battle Creek.

Cass County—8

Green, George W., Dowagiac.
Loupee, Sherman L., Dowagiac.
McCutcheon, W. C., Cassopolis.
Bellinger, Ernest G., DeWitt.
Bell, W. S., Elsie.
Abbott, Vernon C., St. Johns.
Frace, Guy H., St. Johns
Hart, Arthur O., St. Johns.
Ho, Thomas Y., St. Johns.
Luton, Frank E., St. Johns.
McWilliams, William B., Maple Rapids.
Schemer, Ernest, Fowler.
Scott, W. A., St. Johns.

Eaton County—12

Burleson, A. H., Olivet.
Dean, C., Eaton Rapids.
Hargrave, Don V., Eaton Rapids.
Huber, Charles D., Charlotte.
McCoy, Earl M., Grand Ledge.
Meyer, H. R., Potterville.
Quick, Phil H., Olivet.
Rickerd, Vinton J., Charlotte.
Sackett, C. S., Charlotte.
Sassaman, F. W., Charlotte.
Stimson, C. A., Eaton Rapids.
Welch, Rolland A., Bellevue.

Genesee County—41

Auld, D. V., Flint.
Bird, William G., Flint.
Bogart, Leon M., Flint.
Burr, C. B., Flint.
Chambers, M. S., Flint.
Charters, John H., Flushing.
Clark, C. P., Flint.
Covert, F .L., Gaines.
Cook, Henry, Flint.
Curry, George J., Flint.
Avers, J. W., Flint.
Goering, George R., Flint.
Gutov, Isadore, Flint.
Himmelberger, R., Flint.
Johnson, Frank D., Flint.
Knapp, H. D., Flint.
Knapp, H. W., Flint.
Knapp, Mark S., Flint.
LeGalley, K. B., Flint.
McGarry, B. G., Fenton.
McArthur, Arthur. Flint.
Malfroid, B. W., Flint.
Macduff, R. Bruce, Flint.
Marshall. W. H., Flint.
Merritt, C. V., Flint.
Miner, F. B., Flint.
Moll. Carl F., Flint.
Ira D. Odle, Flint.
Orr, J. W., Flint.
Probert, C. E., Flint.
Randall, H. E., Flint.
Reeder, Frank E., Flint.
Rowley, James A., Flint.
Scott, R. D., Flint.
Stewart, Hugh A., Flint.
Streat, R. W., Flint.
Treat, David L., Flint.
Wall, William J., Flint.
White, H. T., Flint.
Winchester, W. H., Flint.
Willoughby, G. L., Flint.

Gogebic County—1

Tew, W. Ellwood, Bessemer.

Grand Traverse-Leelanau—4

Inch, George F., Traverse City.
Murphy, Fred E., Cedar.
Sladek, E. F., Traverse City.
Way, Lewis R., Traverse City.

Gratiot-Isabella Clare—17

Barstow, W. E., St. Louis.
Budge, Melvin J., Ithaca.

Burt, C. E., Ithaca.
Carney, Thomas J. Alma.
DuBois, Charles F., Alma.
Gillett, J., Weidman.
Graham, F. J., Alma.
Hall, B. C., Pompeii.
Highfield, E. M., Alma.
Hobbs, Alton Deane, St. Louis.
Howe, L. A., Breckenridge.
Hubbard, M. C., Vestaburg.
Lamb, E. T., Alma.
Robinson, Bradbury N., St. Louis.
Smith, R. B., Alma.
Street, E. L., Wheeler.
Young, W. G., Shepherd.

Hillsdale County—6

Bowee, Charles T., Hillsdale.
Green, Burt F., Hillsdale.
Hamilton, H. S., Reading.
Johnson, J. H., Hillsdale.
Miller, Harry C., Hillsdale.
Sawyer, Walter H., Hillsdale.

Houghton County—1

Ellis, William H., Hancock.

Ingham County—85

Bartholomew, H. S., Lansing.
Bauch, G. F., Lansing.
Benning, C. H., Lansing.
Behen, William C., Lansing.
Brucker, Karl B., Lansing.
Bruegel, O. H., East Lansing.
Burdick, Austin F., Lansing.
Cameron, W. T., Lansing.
Byington, G. M., Charlotte.
Campbell, A. M., Lansing.
Carbaugh, Harriet M., Lansing.
Carr, E. I., Lansing.
Christian, L. G., Lansing.
Cushman, Frank J., Lansing.
Culver, Sidney H., Mason.
Darling, L. H., Lansing.
Deacon, W. J. V., Lansing.
DeVries, C. F., Lansing.
Doyle, C. P., Lansing.
Drolett, Fred J., Lanisng.
Dunn, F. C., Lansing.
Dunkin, L. S., Williamston.
Ellis, C. W., Lansing.
Foust, Earl H., Lansing.
Freeland, O. H., Mason.
French, Horace L., Lansing.
Garner, George L., Lansing.
Goldner, R. E., Lansing.
Galbraith, D. A., Lansing.
Gardner, Cyrus B., Lansing.
Gauss, Charles B., Lansing.
Hart, L. C., Lansing.
Haze, H. A., Lansing.
Heckert, Joseph K., Lansing.
Henry, Leonard L., Lansing.
Hermes, E. J., Lansing.
Hill, S. R., Lansing.
Holm, Marinus L., Lansing.
Huntley, Fred M., Lansing.
Huntley, Victor L., Lansing.
Hurth, M. S, Lansing.
Jones, Freeman A., Lansing.
Jones, Francis, Lansing.
Kalmbach, R. E., Lansing.
Kennedy, W. R., Lansing.
Loree, Maurice C., Lansing.
Ludlum, L. C., Lansing.
Martin, E. L., Lansing.
McConnell, E. G., Lansing.
McCorvie, Ray, East Lansing.
McIntyre, J. Earl, Lansing.
McNamara, W. E., Lansing.
Miller, Harold A., Lansing.
Mullett, J. H. F., Williamston.
Olin, R. M., Lansing.
Osborn, Samuel, Lansing.
Owen, Arthur E., Lansing.
Owen, John S., Lansing.
Peacock, T. L., Lansing.
Pinkham, R. A., Lansing.
Randall, O. M., Lansing.
Rockwell, H. C., Lansing.
Ruch, Flora H., Lansing.
Rulison, John G., Lansing.
Russell, C .V., Lansing.
Seger, Fred L., Lansing.
Shaw, Milton, Lansing.
Smith, H. M., Lansing.
Snell, D. M., Lansing.
Snyder, LeMoyne, East Lansing.
Stonehouse, G. G., Lansing.
Stucky, George C., Lansing.
Strauss, P. C., Lansing.
Towne, Lawrence C., Lansing.
Turner, Frank W., Lansing.
Vander Slice, E. R., Lansing.
VanderZalm, T. P., Lansing.
Warford, J. T., Lansing.
Weinburgh, H. B., Lansing.
Welch, W. H., Lansing.
Willson, Howard S., Lansing.
Wight, W. G., Lansing.
Wiley, Harold W., Lansing.
Yerkes, Louis N., Mason.

Jackson County—17

Bulson, A. E., Jackson.
Clarke, Corwin S., Jackson.
Cooley, R. M., Jackson.
Corley, C., Jackson.
Dengler, Charles R., Jackson.
Finton, Walter L., Jackson.
Hicks, Glenn C., Jackson.
Hungerford, P. R., Concord.
Hurley, Harold L., Jackson.
Lewis, E. F., Jackson.
Leahy, Edward, Jackson.
Ludwick, J. E., Jackson.
McGarvey, W. E., Jackson.
Munro, C. D., Jackson.
Robinson, D. E., Jackson.
Smith, John C., Jackson.
Thayer, Earl A., Jackson.

Kalamazoo-Allegan-VanBuren—22

Barrett, F. Elizabeth, Kalamazoo.
Boys, C. E., Kalamazoo.
Brunson, E. T., Ganges.
Collins, Ward E., Kalamazoo.
Crane, A. W., Kalamazoo.
Crum, Leo J., Kalamazoo.
Crowell, F. B., Lawrence.
DenBleyker, Walter, Kalamazoo.
Fast, Ralph B., Kalamazoo.
Jackson, John B., Kalamazoo.
McNabb, Arthur A., Lawrence.
Ostrander, Herman, Kalamazoo.
Penoyar, F. C., South Haven.
Rigterink, H. A., Kalamazoo.
Rogers, L. V., Galesburg.
Shepard, B. A., Kalamazoo.
Smith, Malcolm, Allegan.
Stewart, John D., Hartford.
Van Ness, J. H., Allegan.
Walter, R. J., Saugatuck.
Wilbur, Edward P., Kalamazoo.
Young, William Rae, Lawton.

Kent County—59

Baker, Abel J., Grand Rapids.
Andersen, E. B., Grand Rapids.
Bettison, William L., Grand Rapids.
Blackburn, H. M., Grand Rapids.
Boet, Frank A., Grand Rapids.
Breakey, Robert S., Grand Rapids.
Brook, J. D., Grandville.
Brotherhood, James S., Grand Rapids.
Butler, William J., Grand Rapids.
Butterfield, A. C., Grand Rapids.
Campbell, Alexander M., Grand Rapids.
Corbus, Burton R., Grand Rapids.
Currier, Fred P., Grand Rapids.
Denham, R. H., Grand Rapids.
Dodge, W. T., Grand Rapids.
Failing, John F., Grand Rapids.
Gillett, Orla H., Grand Rapids.
Hardy, Faith F., Grand Rapids.
Huizinga, J. C., Grand Rapids.
Hyland, William A., Grand Rapids.
Johnston, Collins H., Grand Rapids.
Karshner, Clyde F., Grand Rapids.
Lamb, G. F., Grand Rapids.
Larned, Frederick J., Grand Rapids.
Lanting, D. B., Byron Center.
Lieffers, Harry, Grand Rapids.
McRae, J. H., Grand Rapids.
Maurits, Reuben, Grand Rapids.
Miller, Margaret A., Grand Rapids.
Moll, A. M., Grand Rapids.
Moore, V. M., Grand Rapids.

Morrill, Donald M., Grand Rapids.
Nesbitt, E. N. Grand Rapids.
Pyle, Henry J., Grand Rapids.
Richards, R. G., Grand Rapids.
Rogers, John R., Grand Rapids.
Roller, Louis A., Grand Rapids.
Schnoor, Elmer W., Grand Rapids.
Smith, A. B., Grand Rapids.
Smith, Edwin M., Grand Rapids.
Smith, Ferris, Grand Rapids.
Smith, R. Earle, Grand Rapids.
Snapp, Carl F., Grand Rapids.
Southwick, George H., Grand Rapids.
Spencer, Ralph H., Grand Rapids.
Straatsma, C. R., Grand Rapids.
Stuart, G. J., Grand Rapids.
Strong, Edwin B., Rockford.
Thompson, P. L., Grand Rapids.
Torgerson, W. R., Grand Rapids.
VandenBerg, Henry J., Grand Rapids.
Vis., William R., Grand Rapids.
Votey, Frank A., Grand Rapids.
Vann, Norman S., Grand Rapids.
Warnshuis, F. C., Grand Rapids.
Wells, Merrill, Grand Rapids.
Wenger, A. V., Grand Rapids.
Whinery, Joseph B., Grand Rapids.
Willits, Paul W., Grand Rapids.

Lapeer County—5

Best, H. M., Lapeer.
Kay, W. J., Lapeer.
Marsh, Philip E., Otter Lake.
O'Brien, D. J., Lapeer.
Zemmer, H. B., Lapeer.

Lenawee County—6

Chase, A. W., Adrian.
Heffron, Charles H., Adrian.
Hewes, A. B., Adrian.
Marsh, R. G. B., Tecumseh.
Van Dusen, Chad A., Blissfield.
Westgate, C. H., Morenci.

Macomb County—3

Croman, Joseph M., Mt. Clemens.
Curlett, J. E., Roseville.
Greene, C. E., Richmond.

Manistee County—1

Robinson, H. D., Manistee.

Marquette-Alger County—3

Burke, R. A., Palmer.
Finch, Russell L., Marquette.
Hornbogen, A. W., Marquette.

Mason County—1

Goulet, Leo J., Ludington.

Mecosta County—2

Franklin, B. L., Remus.
Grieve, Glenn, Big Rapids.

Ionia-Montcalm County—18

Barker, J. E., Crystal.
Becker, Myron G., Edmore.
Bower, Albert J., Greenville.
Horne, George E., Stanton.
Johns, Jos., Ionia.
Johnson, F. A., Greenville.
Kelsey, Lee E., Lakeview.
Lilly, I. S., Stanton.
McCann, John J., Ionia.
Marsh, F. M., Ionia.
Maynard, H. M., Ionia.
Pankhurst, C. T., Ionia.
Peabody, C. H., Lake Odessa.
Penton, A. B., Smyrna.
Robertson, Perry C., Ionia.
Robinson, J. W., Lake Odessa.
Stanton, G. A., Belding.
Toan, John W., Portland.

Monroe County—3

Rubley, Samuel J., Monroe.
Thiede, F. C., Monroe.
Karch, Arthur W., Monroe.

Muskegon County—7

Busard, Robert I., Muskegon.
Eames, Lucy N., Muskegon.
Garber, Frank W., Muskegon.
Harrington, A. F., Muskegon.
LeFevre, George L., Muskegon.
Norford, F. N., Muskegon.
Powers, Lunetto, Muskegon.

O. M. C. O. R. O.—1

Keyport, C. R., Grayling.

Oakland County—8

Burt, F. J., Holly.
Campbell, Harvey, Pontiac.
Colvin, Nathan B., Pontiac.
Corbit, A. B., Oxford.
Farnham, Lucias, A., Pontiac.
Lockwood, Clement E., Holly.
Mercer, Frank A., Pontiac.
Roehm, Harold R., Birmingham.

Oceana County—2

Buskirk, J. D., Shelby.
Griffin, W. L., Shelby.

Ottawa County—5

Brower, Arthur J., Holland.
Cook, Daniel, Holland.
Long, Charles E., Grand Haven.
Nichols, R. H., Holland.
Stickley, A. E., Coopersville.

Saginaw County—18

Anderson, William K., Saginaw.
Bagshaw, D. E., Saginaw.
Cady, F. J., Saginaw.
Curtis, E. E., Saginaw.
Harvie, L. C., Saginaw.
Hutchinson, John W., Saginaw.
Keller, S. S., Saginaw.
Kempton, R. M., Saginaw.
Ling, E. M., Hemlock.
Lohr, Oliver W., Saginaw.
McKinney, A. R., Saginaw.
McLandress, J. A., Saginaw.
Powers, Julius H., Saginaw.
Rowe, B. B., Saginaw.
Scott, Robert R., Saginaw.
Toshach, Clarence E., Saginaw.
Watson, R. S., Saginaw.

Shiawassee County—15

Bene, J. J., Owosso.
Carney, E. J., Durand.
Crane, C. A., Corunna.
Cudworth, L. M., Perry.
Fair, Robert C., Durand.
Greene, I. W., Owosso.
Haviland, J. J., Owosso.
Hixson, L. D., Durand.
Hume, Arthur M., Owosso.
Hume, H. A., Owosso.
McCormick, Colin, Owosso.
Mahaney, R. C., Owosso.
Parker, W. T., Owosso.
Soule, G. T., Henderson.
Weinkauf, William F., Corunna.

St. Clair County—7

Burley, Jacob H., Port Huron.
Callery, A. L., Port Huron.
Clancy, C. C., Port Huron.
Fraser, R. C., Port Huron.
Haight, Edward, Emmett.
Heavenrich, Theo. F. Port Huron.
MacKenzie, Alex. J., Port Huron.

St. Joseph County—4

Barninger, C. E., Mendon.
Dean, Ray, Three Rivers.
Morris, Charles G., Three Rivers.
Robinson, Fred W., Sturgis.

Tri-County—1

Ricker, Otto L., Cadillac.

Tuscola County—2

Clark, C. W., Caro.
Young, S. B., Cass City.

Washtenaw County—22

Barss, Harold D., Ypsilanti.
Bauer, Theodore I., Ann Arbor.
Bruce, James D., Ann Arbor.
Cabot, Hugh, Ann Arbor.
Camp, Carl D., Ann Arbor.
Cummings, H. H., Ann Arbor.
Cunningham, J. E., Fowlerville.
Darling ,Cyrenus G., Ann Arbor.
Furstenberg, A., Ann Arbor.
Honeywell, Bert H., Ann Arbor.
Huston, John, Ann Arbor.
Kampmeier, R. H., Ann Arbor.
Klingman, Theophil, Ann Arbor.
Kudner, Don F., Ann Arbor.
Langford, Theron S., Ann Arbor.
Levin, Samuel J., Ann Arbor.
Mersen, John, Ypsilanti.
Peet, Max, Ann Arbor.
Scheurer, P. A., Manchester.
Sigler, Hollis L., Howell.
Wilson, Frank N., Ann Arbor.
Youmans, John B., Ann Arbor.

Wayne County—129

Amberg, Emil, Detroit.
Bagley, H. E., Detroit.
Baker, George J., Detroit.
Ballin, Max., Detroit.
Barbee, G. H., Detroit.
Barton, J. R., Detroit.
Balmgarten, E. C., Detroit.
Beattie, Robert, Detroit.
Beaver, D. C., Detroit.
Bernstein, Edward J., Detroit.
Bell, John N., Detroit.
Belknap, C. H., Detroit.
Bernard, W. G., Detroit.
Blain, Alexander W., Detroit.
Blanchard, F. N., Detroit.
Biddle, Andrew P., Detroit.
Brooks, Clark D., Detroit.
Brown, A. O., Detroit.
Caldwell, J. E., Detroit.
Campbell, Mary B., Detroit.
Campbell, Duncan, Detroit.
Campbell, Don M., Detroit.
Carter, John M., Detroit.
Carstens, Henry R., Detroit.
Cassidy, William J., Detroit.
Caster, E. W., Highland Park.
Catherwood, Albert E., Detroit.
Charters, J. Hamilton, Detroit.
Chester, John L., Detroit.
Clark, Harry L., Detroit.
Clark, R. L., Detroit.
Collins, A. N., Detroit.
Cohoe, Don A., Detroit.
Cole, Fred H., Detroit.
Cole, W. C. C., Detroit.
Condit, L. Irving, Detroit.
Connor, Guy L., Detroit.
Connor, Ray, Detroit.
Daniels, Lewis E., Detroit.
Daniels, Lewis E., Detroit.
Davis, James E., Detroit.
Dempster, J. H., Detroit.
Dibble, Harry F., Detroit.
Doty, Arthur G., Detroit.
Douglas, Bruce H., Northville.
Dutchess, Charles E., Detroit.
Foster, T. J., Highland Park.
Foster, Robert F., Detroit.
Frothingham, George E., Detroit.
Funston, Robert V., Detroit.
Gates, Nathaniel, Detroit.
Glendening, J. H., Detroit.
Garretson, W. T., Detroit.
Garner, H. B., Detroit.
Grant, Heman, Detroit.
Hackett, William A., Detroit.
Haynes, L. W., Detroit.
Henderson, Leslie T., Detroit.
Hirschman, Louis J., Detroit.
Howell, Don M., Detroit.
Hoobler, B. Raymond, Detroit.
Hunt, Verne G., Detroit
Jenne, B. H., Detroit.
Jennings, Alpheus F., Detroit.
Jennings, C. G., Detroit
Kasper, Joseph A., Detroit.
Kay, M. Boyd, Detroit.
Kelly, Frank A., Detroit.
Kenning, J. C., Detroit.
Kiefer, Guy L., Detroit.
Kimzey, John A., Detroit.
King, J. Everett, Detroit.
Lawrence, William C., Detroit.
McLean, Angus, Detroit.
Levy, David J., Detroit.
Loucks, R. E., Detroit.
McAlpine, G. S., Detroit.
McKean, Richard M., Detroit.
McGarvah, J. A., Detroit.
McCormick, Colin C., Fordson.
McClelland, C. C., Detroit.
McIntosh, W. W., Highland Park.
Malejan, Harry M., Detroit.
Matthews, J. D., Detroit.
Merrill, William O., Detroit.
Naud, Henry J., Detroit.
O'Hora, Bernard A., Detroit.
Owen, Robert G., Detroit.
Peirce, Howard W., Detroit.
Pierson, Merle, Detroit.
Poos, Edgar E., Detroit.
Pratt, J. P., Detroit.
Richardson, Allan L., Detroit.
Richey, Edward B., Detroit.
Robb, J. M., Detroit.
Royce, F. D., Detroit.
Ruedisuel, C. A., Detrot.
Russell, Beck G., Detroit.
Ryerson, Frank L., Detroit.
St. Louis, R. V., River Rouge.
Sage, Edward O., Detroit.
Saley, D. H., Northville.
Scott, William J., Detroit.
Shute, R. James, Detroit.
Siddall, Roger S., Detroit.
Simpson, H. Lee, Detroit.
Sladen, Frank J., Detroit.
de Spelder, R. E., Detroit.
Stone, D. D., Highland Park.
Thompson ,Alexander, Detroit.
Tibbals, Frank B., Detroit.
Van Duzen, V. L., Detroit.
Vaughan, J. W., Detroit.
Vollertsen, B. H., Detroit.
Wadsworth, Warren, Detroit.
Wallace, W. B., Highland Park.
Walker, Frank B., Detroit.
Walker, Roger V., Detroit.
Wendel., J. G. Detroit.
Wendt, Leonard F., Detroit.
Whittaker, A. H., Detroit.
Wickham, A. B., Detroit.
Witter, Frank C., Highland Park.
Wilson, Harold, Detroit.
Wilson, Walter, J., Detroit.
Wood, George H., Detroit.
Wood, Lilla B. Detroit.
Woodworth, William J., Detroit.
Yates, H. Wellington, Detroit.
Yoakam, Wayne, A., Detroit.

GUESTS

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Dr. George F. Green, Rochester, Minn.
Dr. Harold Hays, New York City.
Dr. C. F. Hoover, Cleveland, Ohio.
Dr. Irvin Abell, Louisville, Ky.
Dr. E. S. Judd, Rochester, Minn.
Dr. George W. MacKenzie, Philadelphia, Penn.
Dr. W. M. Nagle, Muskogee, Okla.
Dr. C. W. Rutherford, Indianapolis, Ind.
Dr. Alfred A. Strauss, Chicago, Ill.
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Dr. U. V. Portmann, Cleveland, Ohio.

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OCTOBER, 1926

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

OUR LANSING MEETING

The minutes of the House of Delegates will be found in this issue. They constitute the record of our 106th Annual Meeting in Lansing on September 14-15-16th, but fail to convey the spirit and cordiality that prevailed. Neither is it sufficient to state that it was one of our most outstanding meetings. Consequently we purport pointing out some of the features.

At the very outset credit must be given to the Lansing profession. For weeks did they plan and arrange so that during our three day stay their team work was perfect. No detail was overlooked. The Old's Hotel was of such construction that all our general and combined meetings were housed under its roof. From the opening of the Registration Book till the last guest departed there were relays of a dozen Lansing men, on duty attending wants, evidencing cordiality and providing for our pleasures and comfort. The entertainment, dinner and demonstrations at the State College were but the climax of Lansing's example of perfect hosts. To the Ingham County Society do we tender our appreciative thanks.

The Section Programs evoked interest and praise. The meetings were well attended. The several papers and discussions will appear in the issues of The Journal.

The total registration was 626, establishing our highest record for meetings held outside of Detroit and Grand Rapids.

The following officers were elected:

President, J. B. Jackson, Kalamazoo.

Vice Presidents: E. I. Carr, Lansing; W. J. Cassidy, Detroit; A. F. Fisher, Hancock; J. J. Haviland, Owosso.

Councilors: B. R. Corbus (re-elected), Grand Rapids; C. E. Boys, Kalamazoo; H. Cook, Flint.

Chairman of the Council, R. C. Stone, Battle Creek; Vice Chairman, B. R. Corbus, Grand Rapids; Speaker, W. K. West, Painesdale; Vice Speaker, Carstens, Detroit.

Delegates to A. M. A.: C. S. Gorsline, Battle Creek; L. J. Hirshman, Detroit; J. D. Brook, Grandville.

Alternates: A. W. Hornbogen, C. E. Boys, J. G. R. Manwarring.

Mackinac Island was selected for our 1927 meeting place, with the latter part of June as the time.

We refer our readers to the official minutes and the Editorial Comments for further details of our 106th Annual Meeting.

PRESIDENT JACKSON

In the hundred and six years of our organizational existence our Society lists a distinguished line of Presidents. We are proud of these fellow members who have served so faithfully and so well. The presidency is an honor of which one may be proud to attain. In turn the occupant likewise conveys honor upon the Society by reason of his ability, attainments and reputation. This is evidenced once more in the election to office of President, for the ensuing year, Dr. John B. Jackson of Kalamazoo, a member fully deserving of the honor and a man who honors the Society.

We do not purpose imparting a biographical sketch of our new President. His career is common knowledge. The services he has subscribed to his local and State Societies reflect unselfish contribution of time, judgment and labor extending over some fifteen years of activity. During this period he has manifested but one motive, one purpose and one ideal: the best interest of the profession, the Society and the individual doctor. To that end did he serve and upon that problem did he concentrate his energy. Those who were associated with him early perceived his keen grasp of affairs and unfailing right judgment and accorded full re-

spect for his opinions. Through all there pervaded a deep sincerity. He is not without humor and does not descend to the solemn deacon-like demeanor when in conference. To us these are his outstanding attributes. It is difficult to do justice to him in words for you have to learn to know "Jack," you've got to work with him to fully appreciate his calibre and his humanness. We are proud of having been so privileged and prize the association.

As our President, Dr. Jackson may be confidently looked to as acquitting himself of the trust and at the same time leading us on to greater achievements.

JOHN BERT JACKSON, President

THE MEDICAL CORPS, U. S. NAVY

The celebration of Navy Day, October 27, brings to mind the great achievements of the navy in war. We are all proud of our navy as a powerful fighting unit and sleep more soundly at night because we know the fleet is awake. In thinking of the navy, however, we, as members of the medical profession, should bear in mind particularly that branch of the service whose mission—in peace as in war—is to keep the navy "Fit to Fight"—the Medical Corps.

While the primary duty of the Medical Department of the navy is as stated, it has other duties to perform as well. Not the least among these, and one of great value and interest, is

that of looking after the physical welfare of the natives of our island possessions and protectorates.

In the Philippines, the navy's medical activities are confined to the care of its own personnel and of the natives living in the vicinity of the two naval stations, Cavite and Olongapo.

In our other possessions—Guam, Samoa, and the Virgin Islands—the entire medical care of the natives devolves upon the Navy Medical Corps. That this responsibility has been fully realized and this duty well performed is evidenced by the great changes that have occurred in the health conditions of these islands since their acquisition by the United States. Formerly hot-beds of disease, particularly malaria, filariasis, and yaws, they are now almost free from these diseases and their morbidity statistics compare favorably with those of our own more highly civilized communities.

Infant mortality, due to lack of knowledge on the part of mothers and ignorant midwives, was very high among the natives. Training schools for nurses, conducted by members of the Navy Nurse Corps and supervised by members of the Medical Corps, have been established and now native nurses are scattered throughout the islands, teaching the people how best to live and materially reducing both morbidity and mortality rates.

Clinics, to which the natives flock, have been established in all the larger centers and in many outlying villages and are doing a splendid work.

Haiti, while in no sense a dependency of the United States, has, during recent years, been the recipient of many benefits derived from the activities of the Naval Medical Corps within its borders.

Chief among the medical activities in Haiti is the Service d'Hygiene Publique, at the head of which is a Naval Medical Officer, and which, as its name implies, is concerned with the public hygiene and sanitation in the Republic. Much has been accomplished. Sanitary privies are found all over the island, where formerly none existed; sewage disposal has been modernized in the larger cities; hospitals and dispensaries have been built, and modern equipmen installed. All this has been done by Naval Medical Officers, and the work is still going on.

The lower classes of Haitians are densely ignorant, and superstitious to a high degree; but, in spite of this, a beginning in their education along hygienic lines has been made and they are also beginning to see that modern medicine is more effective against disease than their ancient voodoo rites have been.

Irrespective of what our views may be concerning the presence of the American in Haiti, we can at least be pleased that so many of the blessings of sanitation and hygiene have been given to our neighbors by members of the Naval Medical Corps.

POST GRADUATE COURSE AT ANN ARBOR—THREE DAYS—1926

In compliance with the instructions of the Council, approved by the House of Delegates, a *three day course* of *Post-Graduate Instruction* will be conducted at the University Hospital, Ann Arbor, on November 11, 12 and 13, 1926, Thursday, Friday and Saturday.

The program and details are being perfected by the staff of the Medical Department of the University. These details will be announced in our next issue. In general we can state that they will consist of hourly demonstrations, utilizing the clinical and laboratory facilities of the University Hospital. Each day will be fully occupied from 9 a. m. to 9 p. m.

Who are eligible? Every member of our State Society.

Cost? Your travel expense and hotel. There are no fees or assessments.

Enrollment—Every member availing himself of this course must enroll by advising the State Secretary, 1508 G. R. National Bank building, Grand Rapids, *not later than November 1st, 1926.* This enrollment is imperative in order that amphitheatre space and clinic groups can be arranged.

Purpose—To afford each member an opportunity to profit by reason of three days of intensive clinical demonstrations that characterize medical practice and progress of today. This will enable our members to reflect these practices in their daily work. You can't help but return home a better doctor.

We urge then that you plan to attend. Mark the dates on your calender. Send in your enrollment *now.* On Saturday afternoon you can see the University Football team in one of its scheduled games.

Editorial Comments

By reason of frequent inquiry and also because promiscuous claims are often made regarding the numerical membership strength of County Societies, we are imparting the following compilation:

New York County	4,176
Chicago Medical	3,985
Philadelphia County	1,965
Boston—	
Suffolk	735
Norfolk	587
Middlesex	613
	1,935
Los Angeles	1,450
Kings County, N. Y.	1,577
Allegheny County, Pa.	1,264
Wayne County, Mich.	1,186

These are the County Societies having a membership of over 1,000 members.

Ingham County members were ideal hosts and overlooked nothing. They worked as a perfect machine and their "Red Badges" very soon caused every visitor to become aware he had a live host. Particular mention is due to Dr. Shaw, General Chairman, President Segar, Dr. Drollett and Dr. Wiley. We're going to Lansing again—soon.

We all have a more impressive opinion of our State College. Our visit to the campus was a delightful one, made more so by the receptioin tendered by President Butterfield and Dean Giltner.

The first General Session in the Prudden Auditorium recorded an audience of 1,800. Lansing received messages as to our aims and responsibilities from the addresses delivered, that will be inducive to better understanding. It was a snappy program completed by 9:40 P. M.

President Darling's address is published in this issue. It is a far thinking discussion of our professional obligations. Read it, ponder over it and set forth to follow the advice imparted.

President Little's address was appraised by all as splendid and of sound philosophy. We were unable to get the stenographer's report of it in shape for this issue. It will be published in our November number. We are indebted to Dr. Little for contributing so greatly to the success of our meeting.

And did you see the "Old Boys"? Ex-officers of the Society with smiles for all and happy in their mingling with their fellow members. They were, Burr, Bulson, Haughey, Dodge, Hume, Bradley, Kay, Ostrander and Sawyer. We were going to add Biddle, but he was so active and young that we're afraid he would resent being numerated as an "Old Boy." It was heart warming to see these men who gave and did so much for our Society continue to manifest interest by attending.

The exhibits were not missed and they exercised no detracting influence. Guess we can continue to get along without them.

Hats off to the eye, ear, nose and throat section—the "E. E. N. T's." They were at it Tuesday morning and going strong Thursday afternoon. They engendered fellowship by their section dinners and lunches. It's up to the other sections to step lively to get abreast of their stride and that will be going some. Good work "EENT'S," but look out next year, others are going to bid for similar distinguishment.

Mackinac Island—1927! That's the place for our next meeting. Science and sports will go hand in hand so plan now for it's going to be one blinger of a meeting.

The experiment of conducting all the sessions of the House of Delegates on one day appeared to be very satisfactory. The Delegates got down to business and kept at it until all the work was completed. Delegates then had the opportunity of attending all the section meetings. County offcers are especially urged to read the official reports and minutes.

We extend regrets and sympathy to the "Stay at Homes." Yes, we know you were busy and just couldn't come and we are so sorry cuz you missed a fine meeting. We thought of you and felt your absence. Remember too, the fellows who did attend are a little better than you now and you'll have to step along to keep up. By faithfully attending your County Society meetings this winter you can catch-up. Better do it.

Yep, there was a state primary election. Sure we got the early and late returns and well, "That was that" while a certain letter is now not so heinious as it was a few weeks ago. Anyone reading the signs and wall prints could forecast the result—'enuff said.

"Jack's" (excuse) President Jackson's election was a fitting honor to one who has been so faithful and efficient Councilor. We shall be proud of his leadership and know now he is going to keep us humping during the year. He's available for your County meetings, so book him early on your local programs.

Two new Councilors, Cook and Boys, assumed office. We shall look forward to watching things hum in their Councilor Districts.

To whom may we look as the leader in matters pertaining to medicine, medical practice, preventative medicine, public health activities, in fact in all subjects and effort related to and dealing with things medical and related to individual or collective health, disease and disease prevention? This is a question frequently asked by doctors and laymen. The answer has often been in error or unreliable. That is due probably to the hundred and one, yes the thousand and one existing organizations, good and bad, each of whom purposes to be related to some branch of medical and health work. They are Societies, Associations, Bureaus, Leagues, Foundations, "Colleges," Institutes, Boards, Committees, etc., Each self-satisfied by assuming to be the highest authority and leader in the field to which they announce as their specialty. Some of these organizations are good, accomplishing meritorious work; others are bad, even rotten and without sound reasons for existence. The average doctor is as much at loss in discriminating as is the average laymen, but the answer is simple. The answer is apparent if one but pauses to think and is correct because of established prestige. When asked the question here is your answer: In all matters, national in scope, dealing with all branches of medicine and medical science, the outstanding leader and authority is the American Medical Association. In matters of states, the State Medical Society ever officiates in that capacity. Locally it is the County Medical Society. These are ever the recognized leaders. Other organizations taking unto themselves such self appraisal are in error, and bigoted.

Well the primaries are over and the result—Simply that's that. It's a great blare of assertions and promises on both sides and when elections are over we go about our business with little or no effort at all to demand that candidates make good on their promises. That's where we all fall down and for that reason the peddling of jobs and spoils ensue.

"How to Treat Your Doctor"—is the title of an article in Scribner's Magazine, September issue, from one Rhodes.

We call attention to a new field of activity entered upon by the American Medical Association for the guidance and protection of doctors: The establishment of the Council on Physical Therapy with a full time secretary. This Council will do for doctors in all matters pertaining to physical therapy and electrical equipment what the Council on Pharmacy has so splendidly achieved in drugs and pharmacutical preparations. The need was pressing for with increasing

resort to electro-therapy in the treatment of various ailments and conditions there have resulted a wide and wild ogre of manufacture of all types and styles of apparatus at all sorts of prices and with no limit to claims as to their therapeutic efficacy. The individual doctor had no way of determining intrinsic values, merits or efficiency. He bought on blind confidence, and paid prices frequently two or three hundred times their actual worth. In illustration we cite the so-called, radiant or solar lamps. Price $75 to $100. All it is and does can be accompanied by a light bulb at about $3.00 and a parabolic reflector at $7.00 or $8.00 with a plug and a few feet of cord, the total cost not exceeding $15.00. That is but a simple illustration. In the future, Doctor, have electrical equipment salesmen evidence the value of their apparatus by showing it has been approved by the Council on Physical Therapy of the A. M. A. Look to this Council, also for the value of electrical treatment in the treatment of various conditions and do not accept blindly the over enthusiastic advice of some salesmen or even doctors. We welcome the establishment of this new Council which evidences anew continued concern on the part of the A. M. A. for the protection of doctors.

Abortionists should be cited before our State Board of Registration to show cause why their licenses to practice medicine should not be revoked. Every hospital has in it's records the witnessed statement of women who impart the name of the doctor or individual producing the abortion. These statements should be sufficient evidence for revocation of licenses. The patient will not swear to a warrant and become the complaining witness in court. Hence these blackguards continue unmolested. It's time our State Board was undertaking some such proceedure.

If you have been remiss in not reading The Journal during the summer months we recommend that you be alert during the remaining months of this year. Some very interesting and important announcements will be made in succeeding issues. These are of vital interest to you and relate to your membership privileges.

The House of Delegates and the Council very properly accorded recognition of the services recorded by two distinguished members whom death removed from our midst this past year—Drs. C. T. Southworth and B. M. Davey. We miss their wise council and inspiration.

The golfers are coming pretty strong. There were frequent suggestions for a golf tournament at our Annual Meetings. Well, you are going to get one on Mackinac Island next year. Incidently if there are any tennis players or quoit pitchers opportunity will also be afforded for them to contest. Lansing golf clubs were courtesy personified.

The following editorial in the Lansing State Journal is worth reprinting:

GREETINGS, DOC

Comment on the election returns can wait—look who is here.

Welcome to our city, Michigan State Medical Society. You already have most of our appendices, now take the spare room.

Of course, the visiting brothers are aware that there is probably no band of men whom the dear public more enjoys to bambast, not to say dam, than the medical profession, and, yet—oh you know Doc, how it is. We often hand you our last sou, or at any rate promise to hand it. There are times when nobody looks so good as you.

Whether the present visit of the physicians and surgeons may be classed among the lighter hours vouched safe to them, at rare intervals, or whether it is a purely professional visit, we do not know. However, if doctors are as human as we suspect they are, they are combining professional services with pleasure. Where is the American who does not like to go on a jaunt, put up at the big hotel and wear a red or blue badge on his manly bosom? If the doctors did not like to do that once in a while we should be highly suspicious of them.

The visitors will likely "blow themselves" to a sumptuous feast, before they leave our fair city, and overeat and accumulate other ills such as afflict most convention visitors, the morning after, but in this they are like the rest of us—none of us act as well as we know how. So it is that we know that there is a bond of sympathy between the doctors and we other weak erring ones even though their talk, their instruments and bills don't show it.

As indicated above, the whole bloomin' public does like to take a verbal fall out of the medical profession, but in spite of all the public says, from time to time, it does recognize the professional advance that has been made by the medics since they began their upward and onward progress. It does deserve to be said that the medical profession has a fine array of altruistic deeds and accomplishments to its credit.

That the plane of public health is vastly better today than it once was, goes without saying. That the medical profession and those allied with it are largely responsible for the bettered condition we think may be contended with a large degree of assurance. To the narrow view it would seem that the best way for the medical profession to prosper would be to leave a condition conducive of the most disease and suffering, but the contrary situation has come to pass. The medical profession as a whole, has worked steadily in the right direction. Of course, there are sharps and quacks in the profession as there are in all lines of endeavors, but as for scientific medicine it has pursued an onward and upward way.

Lansing may well feel itself proud to entertain the Michigan State Medical Society. It is one of the most important organizations of the commonwealth.

We are indebted to the distinguished guests who participated in our program. When a train derailment delayed the arrival of two speakers, Dr. Strauss became a "pinch hitter" and gave a splendid talk on "Pyloric Stenosis in Infants." Dr. Abel, left his stalled train and drove 40 miles in a taxi and was "on time." These men came to us at considerable expense of personal time. They are not mercenary in doing so but contribute their part to the advancement of the profession and organizational work. We are indeed grateful to each of them.

Do not fail to read the Annual Report of the Council. It imparts just how your affairs are administered. Other states may have efficient functioning Councils but Michigan leads.

The 1927 annual meeting of the American Medical Association will be held in Washington the week of May 16. Dr. William Gerry Morgan of Washington is General Chairman of the local committee on arrangements. In as much as Section Officers are preparing their section programs, Michigan doctors desirous of reading a paper before a section should file their requests at this time. As a rule the programes are completed by December first, and applicants after that date will not be considered.

Note the editorial in this issue relative to a Three

Day Post-Graduate Course at Ann Arbor. This is free to our members and will profit you more, cost less than a jaunt to a grandstand affair in Ohio. Be sure and send in your enrollment. You will regret it if you miss this intensive Clinical demonstration that is being arranged for you and for your personal profit by your state society. It is one of the benefits of membership. Enroll now. For entertainment you will have opportunity of seeing Michigan's team play one of its scheduled football games.

Among Our Letters

NOTE.—***This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.***

WHY THE FAMILY PHYSICIAN?

In these days of Propaganda, Bloc's, Clinics, and Unions' no human occupation, be it trade or profession is overlooked. From the man who gets the bricks up on the scaffold to the one that does all the work, from the white wings that attends to the sanitary condition of our streets, to the undertaker, who covers all the mistakes of humanity, none are missed. Even our profession is made to sit up and eat out of the hand of the state board of health. Some say we fear state medicine, why gentlemen, we have it now, please note how the rank and file of the profession laid down and rolled over when the state health commissioner cracked his whip. Will we do that again? We will not. We are subject to propaganda; in nearly every journal that we pick up, and every newspaper, you will find an article from the pen of some wise man, bemoaning the fate of the family physician. Since the close of the World War we seem to be passing through a wonderful era of unrest and dissatisfaction, not only has our profession become infected by the idea, but the whole world seems to be standing still, wondering what is to come next. While not ready to answer all the questions arising from this condition I shall try and give you one point of view on the title of this paper—why the family physician?

In reviewing the situation, I notice first unusual condition—the doctor does not seem to be worrying, or asking any questions along this line of thought. On the other hand he seems to be contentedly doing his bit as it comes to him, calling for help as he feels the need of the same, bringing the new born into the world in the same old manner. comforting the bereaved in their losses, rejoicing with the young mother at the birth of her first child paying his debts like a christian, and in general being loved and respected in the community where he resides. Still there is something wrong; what is it? Along with the worry and anxiety of what may become of the family physician I notice this point that may have a bearing on the ultimate or final results.

Snce the war there are many small towns throughout the country that have no resident physician, where there were formerly one or more, why? One reason for this seems to be, that during the war the country districts as well as the cities were bled of our young men, and at the close many of them did not return. Many lie on the fields of France today, having made the supreme sacrifice for their country. Of those returning many did not remain, preferring the bright lights of the city and the companionship of those of their own age, to the humdrum life of the usual rural community. This of course reduced or narrowed the field for the physician. Again, the improved means of transportation make it possible for the doctor to reside in the city, and still care for a large clientele in the country. The automobile and the interurbans bring the hospitals much nearer to the rural population than formerly, and the people are rapidly learning to take advantage of the hospital. These refinements of civilization shall we say have made it possible for the needy ones to obtain service, oftimes better, certainly sooner, which is as we all are aware of, in many cases of the greatest importance. The effect of this condition has been to cause many of our men, formerly in general practice, for various reasons to specialize in the different branches of the profession, until it really looks at times as if there was no room or further use for the family physician, but is this true? Must a case, not a patient, as we were wont to designate them in the good old days before the war, must a case be catalogued, card indexed, and numbered as he travels from section to section in the group clinic. God forbid. Commercialism pervades our country in a large way in about every effort of human endeavor, but let it never be said that it applies to us as physicians. The great question appears to me to be, not how shall he be eliminated, but where shall he be placed in the new scheme of things. To me this thought occurs along that line. He is a real and indispensible man on the job, for this reason: Usually he is the first to meet the patient, make the examination, and place him under treatment after making a tentative diagnosis and if he realizes his limitations he will call or refer him to a specialist for further observation, examination, or confirmation of the diagnosis made, with possible suggestions as to the treatment, surgical or medical, as the case may be. He is the one who has the confidence of his patient, making it possible for him to lead him away from the various cults and isms, into the path of legitimate medicine, and possible cure, or at least directed on the right way. What then should be the relationship of the specialist and the family physician.

Should my previous statements be accepted as being true?

In my mind, the spirit of frankness and co-operation must exist between the physician, and specialist, and the patient, if we are to obtain satisfactory results in a large and satisfying manner, and this little bit of psychology, believe me has more to do with the recovery or at least improvement of the patient than we are willing to admit. Now it is a fact, undisputed, that all patients referred to the specialist do not recover, neither do they all succumb, meaning by this statement that we should not delay until the patient is past all human aid before calling counsel or the specialist. If this spirit is carried out honestly on either side giving your patient every opportunity by calling in the man you may select for the case, I am quite sure that the family physician will have no cause to complain of the treatment of his specialist brother. In the past I am inclined to think that the chief cause of complaint of the physician against his brother specialist has been the tendency to belittle or underrate the judgment of the man in general medicine, saying just enough perhaps to make the patient distrustful or dissatisfied or both. Sooner or later we find much to our disgust the patient has passed from

our hands to his, and aside from our financial loss, we lose what is far greater, we lose our faith or whatever you may call it, in our brother, and, it might be some time before we would feel justified in calling him again. Thus we all lose, even the patient. This is not right, and every effort should be made to avoid such a situation, and I feel very certain that if that spirit of honesty and fairness spoken of before, is religiously observed by both the physician and specialist, about all of the friction will be eliminated, Gentlemen, it must be overcome, for this is a device, an interlocking device, one branch of the profession is dependent on the other. There is just one other point that I wish to touch upon as making it difficult for the family physician—in fact I deem it vital, vital to that goodfellowship that should exist between the specialist and the man in general medicine, and that is the habit of the specialist practicing medicine in addition to his specialty, I can see where it might be difficult for the specialist in the smaller cities to keep himself busy by his specialty alone, and I do not find any great fault with the man who has long been a resident of a city, later taken up a specialty, I say I do not find any great fault with such a man taking care of his old patients, but aside from that I can see no reason why the specialist should not refer to the man in general medicine all cases belonging to them. For you know if it were not for the general medicine men referring patients to them the specialist would not be so very busy, and if they were returned to the physician with suggestions as to the line of treatment, there is no doubt in my mind but that spirit of amity and confidence that is absolutely necessary to the successful issue of the conditions under observation would prevail. So, in the final analysis the family physician has his place in the sun, and if treated fairly will never worry or ask questions, but as I said at the beginning of this paper, we will go about contentedly doing his bit as it comes to him, calling in help as needed bringing the new born into the world in the same old way, comforting the bereaved in their distress, rejoicing with the young mother at the birth of her first born, paying his debts like a christian, and in general being loved and respected in the community where he lives. I thank you. Paper read at June meeting of the Ingham County Medical Society.

Victor F. Huntley, M. D.

Editor of The Journal:

The contents of your letter is especially pleasing to me. I realize fully that it is only with your assistance that I can in any way carry on during this coming year. If you will keep me advised of everything that is happening I will at all times do my best; hoping that a year from now we will be able to see that we have accomplished something for organized medicine and the public of Michigan.

Yours very sincerely,

R. C. Stone.

Editor of The Journal:

Thanks for your letter of September 20th. I shall endeavor to give Michigan a dignified representation in the House of Delegates of the A. M. A.

Awaiting the commands of the administration and membership, I am

Yours sincerely,

Louis J. Hirschman.

Editor of The Journal:

Your letter, notifying me of my election to the Speakership of the House of Delegates of The Michigan State Medical Society, received. I appreciate the honor very much but have not sought it in any way. As I have not been a Delegate in some years I know very little of the Speakers duties and will appreciate your help.

Thanking you, and with kindest personal regards, I am,

Sincerely yours,

W. K. West.

Editor of The Journal:

I would appreciate it if you would print the following ad in your next issue.

"Physician wanted, excellent opportunity for young physician interested in pediatrics."

Send statement for the above to the Michigan Home and Training School, Lapeer, Michigan.

Very truly yours,

W. J. Kay,
Medical Superintendent.

State News Notes

Dr. F. J. Larned and Dr. H. T. Clay, Grand Rapids, have become associated and limit their practice to pediatrics.

Born, a son, to Dr. and Mrs. B. R. Corbus. Grand Rapids. We prophesy attainment to councilorship in 1956.

An opportunity to meet some of the world's leading men in the field of tuberculosis is offered Michigan Physicians and Public Health workers at the joint meeting in Detroit on October 12th and 13th, of the Michigan Trudeau Society, the Laennac Society of Ontario, the Medical Society of Detroit and Wayne County, and the Michigan Tuberculosis Association. Sir Henry Gauvain, who is director of the Treloar Hospital for Crippled Children at Alton, Hampshire, England, and who has carried on extensive work in the use of sunlight for the treatment of tuberculosis disease of the bones and joints, will address the meeting as will also Dr. Hans C. Jacobaeus of Stockholm, Sweden. probably the most distinguished exponent of the surgical treatment of tuberculosis, and Dr. Ernst Loewenstein of Vienna, who has attained world prominence for his research in the pathology of the disease, and his knowledge of its social and economic aspects.

Dr. C. E. A. Winslow, of the department of Public Health of Yale University, and Dr. H. A. Pattison of the Potts Memorial Hospital, New York, have been asked to address the conference. Dr. Glenadine Snow of Ypsilanti State Normal College, Professor C. F. Tambling of Mount Pleasant Normal College, chairman of a special committee appointed by the Michigan State Teachers Association to formulate a program of Health Education, and Percy Angove of the Department of Civilian Rehabilitation of the State Department of Public Instruction will also talk. There will be Round Tables and Symposiums for special groups and special problems. Headquarters will be at the Book-Cadillac hotel.

OUR SOCIETY BUSINESS AND ACTIVITIES

HARVEY GEORGE SMITH
EXECUTIVE SECRETARY

NOTE: **This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.**

POST GRADUATE CONFERENCES

Plans for eight Post Graduate Conferences to be held in October and November are under consideration. In the Ninth District the Conference will be conducted at Manistee on October 14 and in the First District at Pontiac on Thursday, November 27. The definite dates and places are to be arranged for the Thirteenth, the Sixth, the Seventh, the Tenth, the Eighth, and the Fifth Districts.

There has been some doubt, at times, whether or not the membership believed in the Post Graduate Conference Program as adopted by the State Society. At the recent annual meeting of the State Medical Society such doubt was dispelled by the endless amount of enthusiasm expressed and the requests from every section of the state by doctors, individually and collectively and by the Councilors, representing the Fourteen Districts . Not less Conferences but more was the demand. With such expression and demand, the series that will be held as the months pass by for the new work year should show a larger attendance everywhere, and should warrant greater accomplishment. The story will in truth be told as one meeting after another is held. The doctors have placed themselves on record, it now remains to be seen whether or not they will fulfill their enthusiasm.

MEETING THE COUNTY MEDICAL SOCIETIES

In order to study the work of County Medical Societies more closely, and to gain a more intimate knowledge of the viewpoint and attitude of the public, the Executive Secretary is visiting County Medical Societies during the next month. The following itinerary covers the period from September 21 to 31.

ITINERARY OF APPOINTMENTS

Oakland County, Pontiac, Tuesday noon, September 21.

Macomb County, Mt. Clemens, Tuesday evening, September 21.

St. Clair County, Port Huron, Wednesday noon, September 22.

Sanilac County, Sandusky, Wednesday evening, September 22.

Huron County, Bad Axe, Thursday noon, September 23.

Tuscola County, Caro, Thursday evening, Septmber 23.

Lapeer County, Lapeer, Friday noon, September 24.

Clinton County, St. Johns, Friday evening, September 24.

Monroe County, Monroe, Tuesday noon, September 28.

Lenawee County, Tecumseh, Tuesday evening, September 28.

St. Joseph County, Three Rivers, Wednesday noon, September 29.

Cass County, Cassopolis, Wednesday afternoon, September 29.

Berrien County, Buchanan, Wednesday evening, September 29.

Hillsdale County, Hillsdale, Thursday evening, September 30.

Branch County, Coldwater, Thursday noon, September 30.

INGHAM COUNTY "AGAIN"

Ingham County has again come into the lime light by being host and hostess to six hundred twenty-six doctors and one hundred wives, daughters and guests of doctors from every section of Michigan. The County Medical Society through its membership wore a smile that never came off during the entire three days. From eight o'clock in the morning until late hours of the night some member was on the job ready to help his visiting fellows. The registration booth always had a "Red Badge Doctor" to greet the incoming doctors. And Lansing Doctors made every one feel as if they had come home, "just hang your hat up any where and take this easy chair." And we actually did have cushioned chairs, padded floors and restful meeting halls. Your enthusiasm, smiles and energy was only exceeded by the electric current of the hotel which blew out several fuses and the bulbs of three lanterns. The ladies of your Society were there, too. Did you hear the visitors say, "We have never been at a State Meeting where we were so royally entertained. Doctors and ladies, you were royal hosts. We hope your "light" shines throughout the state and takes effect in every Society. Read the Editorial Columns for more praises and more truth.

INFORM AND EDUCATE

Twelve doctors signed their names in the little brown book, at the meeting of the Michigan State Medical Society, asking that the "Framed Statement" be sent them postpaid at one dollar and twenty-five cents ($1.25). They will hang this constructive educational statement in their reception room to inform their patients in the requirements of true medical education and what is demanded of every doctor before he is privileged to treat the ill and counsel the apparently well. Little does the public realize how much time, energy and money are expended by members of the medical profession before they have the lawful right to prefix their name with *Doctor* or add the suffix—*M. D.*

Doctors of Medicine must assume the responsibilty of intelligently informing the public. Let the "Statement" (size framed—10x14 inches), which follows aid you in your responsibility. Send your request to your Michigan State Medical Society.

ESSENTIALS FOR ALL WHO TREAT THE SICK

1. A Knowledge of the Human Body, Its Normal Structures, Functions and Governing Laws.
2. A Knowledge of All Common Diseases in Order to Know What Disease is Present.
3. A Knowledge of Effective Remedial Agents; Ability to Apply the One Most Needed.

MINIMUM EDUCATION

That Should Be Required of All Those Who Treat the Sick

1. Four Years of High School.
2. Two Years of College (Including Physics, Chemistry and Biology).
3. Four Years in a Medical College.
4. One Year's Internship in a Hospital.

COUNTY SOCIETY PROGRAMS

In the September number of The Journal we commented on the "Beginnings of the Year's Activities for County Medical Societies." Another month has passed over our horizon. In spots it is dotted with activity, organized action, and in others no action is recorded. But there is a way for accomplishment. That is by using the accomplishments of the State Medical Meeting. Forty-one Societie s were represented by from one to several hundred members. All of these members, no doubt have taken notes, or have in their mind the lectures and discussions of the Section and General Sessions. They may serve their Societies by presenting programs, furnishing discussions for the beginning Scientific meetings of the various Medical Societies. Officers and Committeemen permit your membership to assist in the work of the County Medical Societies. Build your programs now and let not another month pass on without a glimmer. Permit the spirit and enthusiasm that was present at the State Meeting penetrate your county Society meetings and the success of your year's work will be assured.

Deaths

Dr. C. T. Southworth, Monroe, Mich., was killed in an interurban collision, near Monroe on September 2nd, 1926. Dr. Southworth was 54 years old and a graduate of the Detroit College of Medicine and Surgery. Following graduation he located in Monroe, where he rapidly gained prominence and enjoyed an extended practice. Dr. Southworth also served for two terms as member of the council. Beloved by all, a man who was man's friend; cheerful, inspiring with an endearing personality, "Tracy" as we knew him was ever an honored fellow member. Friends he counted by the scores. His tragic death is an ill-timed ending of a life that enhanced all life. To his son, Dr. Varnum Southworth we tender our sincerest sym-

C. T. Southworth

pathies and will ever recall with him the high motives and exemplary life of his distinguished father.

RESOLUTION

Whereas, The tragic and untimely death of Dr. C. T. Southworth of Monroe has removed from our midst, a fellow member, Ex-Councilor and co-worker, therefore

Be It Resolved, That we, The Council of the Michigan State Medical Society, do hereby inscribe in our records, this tribute and acknowledgment of Dr. Southworth's contribution to fellowmen and the medical profession. A man possessed of an endearing personality, a friend of fellow workers, a physician of ability and conscientiousness, a citizen of integrity, Dr. Southworth commanded our respect and held our esteem. Willing to aid to this uttermost, ever extending the helping hand, contributing unstintedly of his time and energy, he exercised a constructive influence to our organizational progress thereby making possible the attainments our Society reflects. Dr. Southworth exemplified these and similar qualities during the 40 years of his professional life and evidenced the spirit that characterizes the life of noble physicians.

Be It Further Resolved, That the sincere sympathy of the Society be extended to his son, and our fellow member, Dr. Varnum Southworth, assuring hm that we mourn with him by reason of the loss of so noble a father, while biding him to receive comfort and peace in the memories that must be his of a loving father.

Adopted and inscribed upon our minutes this sixteenth day of September, 1926.

J. B. Jackson, Chairman,
C. G. Darling, President,
F. C. Warnshuis, Secretary.

Whereas, In the death of Dr. Robert Bennie, of Sault Ste. Marie, the Upper Peninsula Medical Society has suffered the loss of one of its former Presidents, a capable surgeon, an honored member and one of the founders of this Society and

Whereas, We, the members of the Upper Peninsula Medical Society feel the loss of a loved and esteemed member, a man of executive ability who stood ready at all times and under all circumstances to sacrifice time and health in carrying out efficiently all his duties, therefore be it

Resolved, That this Society express its regret at the passing of Dr. Bennie, and extend our deepest sympathy and sorrow to the bereaved family; and be it further

Resolved, That a copy of these resolutions be spread upon the minutes of the Society and a copy be sent to the family of the deceased.

Committee Edward Sawbridge,
H. A. Vennema,
Stephen J. O'Brien.

Whereas, In the death of Dr. Harry J. Hornbogen of Marquette, the Upper Peninsula Medical Society has suffered the loss of one of its charter members, a man of character above reproach, of unusual and recognized ability, of charm of personality which won for him the confidence and affection of his associates, a man whose kindness and charity endeared him to the hearts of all the people, and

Whereas, we, the members of the Upper Peninsula Medical Society feel the loss of a personal friend and an honored member, that therefore be it

Resolved, That our Society express its regret and sorrow at the passing of our fellow member, our appreciation of his services to this Society, and be it further

Resolved, That a copy of these resolutions be spread upon the minutes of our Society and that a copy be sent to the family of the deceased.

Committee Edward Sawbridge,
H. A. Vennema,
Stephen J. O'Brien.

County Society News

WAYNE COUNTY

Officers and Committees—1926-1927

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M. A. Darling, Vice-President.
Frank A. Kelly, Treasurer.
Richard M. McKean, Secretary.

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M. A. Darling
James E. Davis
Frank A. Kelly
Arthur D. Holmes
Richard M. McKean
Wm. M. Donald
Geo. E. McKean
H. A. Luce
F. M. Meader
W. W. MacGregor
Geo. VanAmber Brown
R. Rupp

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James E. Davis, Chairman (1 year)
Wm. M. Donald (2 years)
Frank A. Kelly (3 years)
Geo. E. McKean (4 years)
Arthur D. Holmes (5 years)

Surgical Section

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Byron Loney, Secretary.

Medical Section

F. M. Meader, Chairman.
R. L. Novy, Secretary.

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Wm. Hamilton, Highland Park General.
Ira G. Downer, Jefferson Clinic.
D. J. Leithauser, Deaconess Hospital.
C. C. McCormick, Delray Industrial Hospital.
G. C. Penberthy, Children's Hospital and Michigan Mutual Hospital.
B. U. Estabrook, Herman Kiefer Hospital.

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Dr. J. Albert Kimzey — Dr. Ledru O. Geib
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HOUGHTON COUNTY

In place of the regular monthly medical meeting of the Houghton County Medical Society, a picnic was held at the summer home of Dr. and Mrs. R. B. Harkness. The following invitations were sent to the members and their families:

The members and families of the Houghton County Medical Society will meet at the shack of Dr. and Mrs. Harkness, from five o'clock on, on Tuesday, September 7, 1926.

The shack is on Portage Lake on the Chassell Road. six miles south of Houghton. The place to turn in will be adequately marked on the left side of the road going south.

Bring your own basket luncheon; coffee, cream and ice cream cones will be furnished.

Do not be deterred by a small amount of rain.

The picnic was well attended and everyone present voted Dr. and Mrs. Harkness a kind vote of thanks for their hospitality.

Yours very truly,
G. C. Stewart, M. D., Secretary.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

THE TREATMENT OF FRACTURES: With Notes Upon a Few Common Dislocations. By Charles S. Scudder, M. D., Consulting Surgeon to the Mass. General Hospital, formerly Assistant Professor of Surgery at the Harvard Medical School. Tenth Edition, Revised. Octavo volume of 1,240 pages, with 2,027 illustrations. Philadelphia and London: W. B. Saunders Company, 1926. Polished Buchram, $12 net.

The author's name at once arrests attention and appraises the authoritativeness of the text. We welcome this tenth revision and in reviewing we cannot impart its contents any better than to reprint the preface as follows:

The opportunity to revise and enlarge certain chapters and to add new material is welcomed. I have attempted in this edition to present the present knowledge of the non-operative and the operative methods of treating fractures.

It is very generally understood that rigid and strictly standardized methods of fracture treatment are undesirable and never can be developed. The variety of conditions attending a fracture will always compel the exercise of careful judgment in the choice of treatment. The reasons underlying the selection of any particular form of treatment are becoming more and more clear.

The present high development of (pathological) surgery makes possible and eminently proper today a safe operative treatment of this branch of traumatic surgery. Consequently, I have presented the operative treatment as a system by itself apart from its application to any particular fracture.

The method of conducting the operative treatment correctly, provided and only provided that it is indicated, should be understood and acquired by every surgeon of traumatism.

As the adaptation of treatment to particular fractures is better understood, through the accumulation of well recorded final results, each recent fracture will be treated more ideally and the maximum function will be secured in the shortest possible time commensurate with the nature of the damage done.

Special subjects have been prepared by certain men chosen because of interest, training, and experience. It

is fitting that fractures of the jaws should be considered by an oral surgeon.

The chapter on birth fractures is based largely upon the classical monograph of Dr. Truesdell of New York, N. Y., who has had a rare opportunity to study these conditions. The illustrations for this chapter are almost entirely from the original monograph by Truesdell. Sufficient material on massage has been presented from Dr. Mennell's book to orient the surgeon on this important subject. A perusal of Dr. Mennell's monograph will afford complete information. I wish to acknowledge here the assistance received from a multitude of sources. which I have indicated in the text and in the legends of various illustrations. Errors of omission will be gladly corrected if those discovering them will bring them to my attention.

The incidence of fractures is increasing in the United States. There were in 1924 upward of 155,000 caess of fracture treated in the A grade hospitals of the country.

The results of fracture treatment are too frequently deplorably bad. Crippling from fracture has been understood for years. The economic importance of crippling has been recognized comparatively recently. The surgeon's task is to prevent disability following fracture. The initial early treatment is the easiest and the most important. Most bad results are dependent on inadequate initial treatment.

To insure adequate treatment to a given case of fracture:

A Roentgen-ray record of the injured part should always be had immediately after the injury. The doctor must know what the exact injury is.

The honest intelligent use of a simple accepted form of immediate treatment is imperative.

In every doubtful and difficult case a consulting doctor from a nearby center or from the same town should be employed.

A record of salient facts should be kept. checking the progress of the case.

If it is decided that operative treatment is wise the delegation of this treatment should be to someone competent to do it. "Surgery today is being practiced by too many light hearted and incompetent surgeons" (Sir Berkeley Moynihan). Operations on fractures are difficult. Disasters may be terrible from the improper choice of operative procedures, from the inadequate conduct of the operation itself, and from the abbreviated and neglected after-care of the patient. If a physician cannot handle a fracture adequately well from the beginning to the close of treatment, he should be able to recognize this fact. and to so perfect himself in the initial early treatment that he will handicap neither the patient nor the surgeon who may continue the later more difficult care of the case.

THE SURGICAL TREATMENT OF GOITRE—Willard Bartlett, M. D., D. Sc., F. A. C. S. Cloth, pp. 364, 130 illustrations. Price $8.50. C. V. Mosby Company, St. Louis.

Bartlett is not a stranger in Michigan and we are familiar with his ability as well as his surgical acumen. We therefore welcome this monograph which reflects Dr. Bartlett and imparts his extended experience in the surgical treatment of goitre. The text leaves little to be desired. It deals in detail with present day procedures in the preparation, operation and after care of these cases. In discussing these features the author reflects a highly perfected technic that stresses attention to every detail. This spells satisfactory results, lessened morbidity and lowered mortality. Our only disagreement with him is in the matter of closure of the incision where a running suture or skin clips are employed. A subcutaneous suture is far more satisfactoy. On the whole every surgeon will find this text of exceptional assistance in his thyroid surgery. We commend it to all for study and the application of the rational tendered by the author.

A PRACTICE OF PHYSIOTHERAPY. C. M. Sampson, M. D. Cloth, 620 pp., 146 llustrations. Price $10. C. V. Mosby Company, St. Louis, Mo.

Sampson is not a stranger to those who have devoted time to this subject. Physiotherapy entails more than the purchase of apparatus and a haphazard application of electrodes or exposure to light rays. Basic scientific principles and their application must be known to these therapists ere this form of treatment be instituted.

Dr. Sampson imparts these fundamentals. Hence do we urge that if you are employing physio therapeutic measures that then you should observe the teachings of this recognized authority.

CLINICAL PEDIATRICS. By John Lovett Morse, M. D., Professor of Pediatrics, Emeritus, Harvard Medical School; Consulting Physician at the Children's, Infants' and Floating Hospitals, Boston. Philadelphia and London: W. B. Saunders Company, 1926. Cloth, $9.00 net.

This book imparts the Clinical experiences of the author. As such it becomes a welcome addition to our pediatric literature. At the same time it brings to the pediatrist and practitioner sound principles, methods of diagnosis and treatment. There is little to criticize, much to commend. A valued addition to every library and a source of authentic advice and help.

GOULD'S MEDICAL DICTIONARY, edited by R. J. E. Scott, M. D. 1398 pages. Flexible leather cover. Many illustrations and tables. Price, $9.00. P. Blakiston's Son & Company, Philadelphia.

This new Gould's Medical Dictionary is based upon current medical literature and contains the terms in use in all related sciences. About 76,000 words are included.

The reviewer can only commend in the highest terms that Medical Dictionary which is familiar to most of the profession. We can also add that of all the books on a physician's desk or on his reading table, this Dictionary should head the list. No man in active practice or in research work can for one moment afford to be without this text. It is a labor for which the profession owes the editor and publisher a sincere expression of thanks.

"THE MODERN TREATHENT OF HEMORRHOIDS" by J. Franklin Montague, M. D. University and Bellevue Hospital Medical College. Cloth, 296 pages. 116 illustrations. Price, $5.00. J. B. Lippincott Company, Philadelphia.

The author has covered the question from every angle and in such a way as to render the book of unquestionaple value. There has been so much written on this subject that the literature is so scattered that it is difficult to sift the good from the bad. The author has done this and hence provides a most reliable guide. The facts are plainly discussed, methods are properly evaluated and ediological theories are presented from a rational standpoint. There is nothing empirical in the therapy. We welcome this addition to our literature.

ESSAYS IN THE HISTORY OF MEDICINE—Karl Sudhoff, M. D. Translated by various hands and edited By Fielding H. Garrison, M. D., $5 postpaid. Volume II of The Library of Medical History. Published by Medical Life Press, 12 Mt. Morris P'k. West, New York., N. Y.

An excellent volume, interesting in the extreme.

GOITRE AND OTHER DISEASES OF THE THYROID GLAND. Arnold S. Jackson, M. D., Madison, Wis. Cloth, 300 pp., 152 illustrations. Price $10. Paul B. Hoeber, Inc., 67 E. 59th St., New York.

Goiter is now one of the most important of problems, both medically and socially. It concerns the physician and surgeon, the chemist and the public health officer. The problem is of national concern, because the disease is on the increase in the large Goiter belt of the country and is extending across the continent.

This work is primarily intended to help the physician and surgeon by practical discussion of the lessons derived from intensive study and wide experience in the treatment of all forms of Goiter. Its purpose will have been realized if it succeeds, as the author hopes it will, in demonstrating and disseminating the following propositions and methods:

1. That the classification of Goiters should be into colloid, adenomatous (simple, toxic, and iodine hyperthyroidism) and exophthalmic.

2. That iodine should be administered as a preventive to all children between the ages of eight and twenty, who live in the Goiter belt.

3. That iodine in small amounts should be administered to retard the growth of the adenoma until the age of 21. This, in spite of the fact that iodine will not effect a cure in the presence of an adenomatous Goiter.

4. That iodine as a preventive of Goiter is of no value after the age of 21, has no permanent effect in the treatment of colloid Goiter and may easily induce hyperthyroidism.

5. That in cases of exophthalmic Goiter, the use of iodine is justified only when the diagnosis has been clearly established.

6. That the prevention and treatment of colloid Goiter are purely medical problems and involve a comprehensive system of organization throughout the Goiter area.

7. That adenomatous Goiters are to be considered as potential sources of hypertension, nephritis, myocarditis and malignancy. As such, they demand early surgical treatment.

8. That exophthalmic Goiter is a disease for the surgeon to deal with, and that its successful treatment calls for the close co-operation of the internist with the surgeon.

The publishers believe that this book is one of the most important medical publications of the past decade. They feel that they connot sufficiently stress its values. It is the outcome of the study and treatment of cases extending over years of hospital practice, and embodies authoritative decisions of the highest import.

An extensive bibliography is given but the author is ignorant of the fact that our Journal is published in Grand Rapids and not Detroit. We wonder if there may not be other errors in judgment.

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LATE NEWS NOTES

The Joint Committee on Public Health Education will meet in Ann Arbor on October 5th.

President Jackson's appointments will be announced in the November issue.

We want more news notes. Will you not send them? They serve as a medical record and history for our state.

Guess you've read enuff for this issue. If you like it, tell us. The November issue will contain a number of important announcements. Watch for it.

Monroe is purposing to establish a new hospital. It is to be known as the Southworth Memorial Hospital in memory of Dr. C. T. Southworth.

Harper Hospital Staff is tendering a dinner to Dr. Angus McLean on October 19th. This is in celebration of Dr. McLean's 40 years of practice. Dr. A. W. Blain is Chairman of the Committee on arrangements.

There were approximately 100 ladies registered at the Lansing meeting. The House of Delegates authorized the organization of a Ladies' Auxiliary. Steps are being taken to comply with this action. The president will appoint a Committee of doctors' wives to superintend details.

Post Graduate Clinic, University Hospital, November 11-12-13th. Your membership entitles you to enrollment. Three days of intensive clinical demonstrations. It is planned to have the Mayo Foundation lecture for one of the evening sessions. See the editorial in this issue and send in your enrollment.

COMPARATIVE METHOD FOR DEMONSTRATION OF NORMAL DEVELOPMENT IN INFANCY

Arnold Gesell, New Haven, Conn., (*Journal A.M.A.*, April 24, 1926), describes his method of demonstrating to junior students the developmental characteristics of two pairs of normal infants. respectively 4 and 6 months, and 6 and 9 months.

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